## 506909460 10/06/2021

# **PATENT ASSIGNMENT COVER SHEET**

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6956285

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

## **CONVEYING PARTY DATA**

Name	Execution Date
YONGJUN ZHANG	09/07/2021
REZA ABBASIAN	09/06/2021
DARIN ADLER	09/07/2021
ADA CHAN	09/16/2021
DANA J. DUBOIS	09/07/2021
STEVEN FALKENBURG	09/09/2021
CRAIG M. FEDERIGHI	09/09/2021
KENNETH ARTHUR ABRAHAM FERRY	09/17/2021
CHRISTOPHER PATRICK FOSS	09/09/2021
SAM H. GHARABALLY	09/08/2021
BRIAN ERIK GOLDBERG	09/07/2021
NICHOLAS STEPHEN DOHERTY	09/07/2021
HEENA KO	09/09/2021
KEITH P. KOWALCZYKOWSKI	09/29/2021
GRANT PAUL	09/09/2021
JEFFREY L. ROBBIN	09/11/2021
JAMES S. SAVAGE	09/14/2021
MATTHEW SIBSON	09/07/2021
GURSHAMNJOT SINGH	09/06/2021
CAELAN G. STACK	09/09/2021
LUMING YIN	09/07/2021
CHARLES H. YING	09/06/2021
MARK M. XUE	09/07/2021
HENGLIANG ZHANG	09/08/2021
XIAOYUE ZHANG	09/06/2021
PATRICK L. COFFMAN	09/17/2021

## **RECEIVING PARTY DATA**

Name:	APPLE INC.
Street Address:	ONE APPLE PARK WAY
City:	CUPERTINO

PATENT REEL: 057886 FRAME: 0381

State/Country:	CALIFORNIA
Postal Code:	95014

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	17030804

#### **CORRESPONDENCE DATA**

**Fax Number:** (415)267-4198

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 2024967231

Email: carina.morales@dentons.com, patent.docket@dentons.com

Correspondent Name: BORIS PESIN
Address Line 1: DENTONS US LLP
Address Line 2: 1900 K STREET, NW

Address Line 4: WASHINGTON, D.C. 20006

ATTORNEY DOCKET NUMBER:	P49074US1/77770000552101
NAME OF SUBMITTER:	BORIS PESIN
SIGNATURE:	/Boris Pesin/
DATE SIGNED:	10/06/2021

## **Total Attachments: 52**

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PATENT REEL: 057886 FRAME: 0382

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PATENT REEL: 057886 FRAME: 0383

## **ASSIGNMENT**

This Assignment is by:

Yongjun ZHANG c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	07-Sep-2021	Signature: /	Zhang	/
			Yongjun ZHANG	

## **ASSIGNMENT**

This Assignment is by:

Reza ABBASIAN c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

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- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

In witness whereby, executed by the undersigned on the date opposite the undersigned name.

Date: 06-Sep-2021 Signature: / Reza ABBASIAN

## **ASSIGNMENT**

This Assignment is by:

Darin ADLER c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

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- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	07-Sep-2021	Signature: /	/
		Darin ADLER	

## **ASSIGNMENT**

This Assignment is by:

Ada CHAN c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

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Serial No.: 17/030,804 Filing Date: September 24, 2020

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4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	16-Sep-2021	Signature: /	(A)	,
		_	Ada CHAN	

## **ASSIGNMENT**

This Assignment is by:

Dana J. DUBOIS c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

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- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

Dentons US LLP 118876741 1

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

<sub>Date:</sub> 07-Sep-2021	Signature: /	,
	Dana J. DUBOIS	

## **ASSIGNMENT**

This Assignment is by:

Steven FALKENBURG c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

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18876768 1

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	09-Sep-2021	Signature: /	at Fillyan	,
			Steven FALKENBURG	

#### ASSIGNMENT

This Assignment is by:

Craig M. FEDERIGHI c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

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Assignor has invented certain new and useful inventions in:

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For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- I. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

In witness whereby, executed by the undersigned on the date opposite the undersigned name.

Date: 9/9/2021

Signature: / Craig M. FEDERIGHI

## **ASSIGNMENT**

This Assignment is by:

Kenneth Arthur Abraham FERRY c/o Apple Inc.
One Apple Park Way
Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

In witness whereby, executed by the undersigned on the date opposite the undersigned name.

Date: 17-Sep-2021 Signature: / Kenneth Arthur Abraham FERRY

## **ASSIGNMENT**

This Assignment is by:

Christopher Patrick FOSS c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
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4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	09-Sep-2021	Signature: /	Clfz	
		·	Christopher Patrick FOSS	

## **ASSIGNMENT**

This Assignment is by:

Sam H. GHARABALLY c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
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4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	08-Sep-2021	Signature: /	12_	
			Sam H. GHARABALLY	

## ASSIGNMENT

This Assignment is by:

Brian Erik GOLDBERG c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

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- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	07-Sep-2021	Signature: /	KI	,
		_	Brian Erik GOLDBERG	

## ASSIGNMENT

This Assignment is by:

Nicholas Stephen DOHERTY c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

<sub>Date:</sub> 07-Sep-2021	Signature: /	/
	Nicholas Stephen DOHERTY	

## ASSIGNMENT

This Assignment is by:

Heena KO c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

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- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	09-Sep-2021	Signature: /	/
		Heena KO	

## **ASSIGNMENT**

This Assignment is by:

Keith P. KOWALCZYKOWSKI c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

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4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

In witness whereby, executed by the undersigned on the date opposite the undersigned name.

Date: 29-Sep-2021 Signature: / Keith P. KOWALCZYKOWSKI

## **ASSIGNMENT**

This Assignment is by:

Grant PAUL c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	09-Sep-2021	Signature: /	9 ret Pens	,
			Grant PAUL	

#### ASSIGNMENT

This Assignment is by:

Jeffrey L. ROBBIN c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-inpart claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, reexamination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said nonprovisional application and application for letters patent.
- Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

Dentons US LLP 118875072

> PATENT REEL: 057886 FRAME: 0414

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benefit thereof, or any substitution of any such application, or (c) any letters patent or patents for said inventions in any country or jurisdiction, including, without limitation, any modifications to such letters patent or patents such as through any reissue, re-examination or other post-grant proceeding. For purposes of this paragraph, "procurement, maintenance, enforcement, defense" shall include, without limitation, any preparation, prosecution, pre-grant proceeding, and post-grant proceeding, whether before a patent office or other administrative body or judicial body with jurisdiction therefor.

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

In witness whereby, executed by the undersigned on the date opposite the undersigned name.

## ASSIGNMENT

This Assignment is by:

James S. SAVAGE c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and

Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above 4. mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

In witness whereby, executed by the undersigned on the date opposite the undersigned name.

Date: 14-Sep-2021

Signature: / James S. SAVAGE

# ASSIGNMENT

This Assignment is by:

Matthew SIBSON c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	07-Sep-2021	Signature: /	MSikn	/
			Matthew SIBSON	

# **ASSIGNMENT**

This Assignment is by:

Gurshamnjot SINGH c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date: 06-Sep-2	021	Signature: /	forty	
			Gurshamnjot SINGH	

# **ASSIGNMENT**

This Assignment is by:

Caelan G. STACK c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	09-Sep-2021	Signature: /	and Chart	/
			Caelan G. STACK	_

# **ASSIGNMENT**

This Assignment is by:

Luming YIN c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	07-Sep-2021	Signature: / Wor	/
		Luming YIN	

# ASSIGNMENT

This Assignment is by:

Charles H. YING c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	06-Sep-2021	Signature: /	/
		Charles H. YING	

# **ASSIGNMENT**

This Assignment is by:

Mark M. XUE c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

#### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	07-Sep-2021	Signature: /	- nl	/
			Mark M. XUE	

# **ASSIGNMENT**

This Assignment is by:

Hengliang ZHANG c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	08-Sep-2021	Signature: /	याह	/
		_	Hengliang ZHANG	

# **ASSIGNMENT**

This Assignment is by:

Xiaoyue ZHANG c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and

Dentons US LLP 118900089 1

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

Date:	06-Sep-2021	Signature: /	0-6	/
		_	Xiaoyue ZHANG	

# **ASSIGNMENT**

This Assignment is by:

Patrick L. COFFMAN c/o Apple Inc. One Apple Park Way Cupertino, California 95014

(referred to in this Assignment as "Assignor"), whose residence or mailing address information is listed above.

This Assignment is to:

Assignee: Apple Inc.

Address: One Apple Park Way, Cupertino, California 95014

A juristic entity duly organized under and pursuant to the laws of: California

(referred to in this Assignment as "Assignee"), which desires to acquire the entire right, title and interest in, to and under said patent application and the inventions covered thereby.

Assignor has invented certain new and useful inventions in:

### USER INTERFACES FOR ENABLING AN ACTIVITY

for which the following application has been filed in the United States of America:

Serial No.: 17/030,804 Filing Date: September 24, 2020

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged,

- 1. Assignor hereby sells, assigns, transfers and sets over or acknowledges that Assignor has sold, assigned, transferred and set over, to Assignee, its successors, legal representatives and assigns, Assignor's entire right (including the right to claim priority), title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, any and all provisionals, non-provisionals, divisions, continuations, and continuations-in-part claiming priority thereto or the benefit thereof, substitutions of said applications, and any and all letters patent or patents in the United States of America and all foreign countries or jurisdictions which may be granted therefor and thereon, including, without limitation, any modifications to such letters patent or patents such as through reissue, re-examination or other post-grant proceeding, any and all extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
- 2. Assignor represents, warrants and covenants (a) that, at the time of execution and delivery of this agreement, Assignor is a lawful owner of a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement, or (b) that Assignor lawfully owned a right, title and interest in and to said inventions and said non-provisional application and application for letters patent, and that the same were unencumbered and that Assignor sold, assigned, transferred and set over to Assignee and its successors, legal representatives and assigns, the right, title and interest in and to said inventions and said non-provisional application and application for letters patent.
- 3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said non-provisional application and application for letters patent; (b) any division, continuation, or continuation-in-part claiming priority thereto or the

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patent of the United States to Assignee as the assignee of said inventions and said application for letters patent, and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

In witness whereby, executed by the undersigned on the date opposite the undersigned name.

Date: 17-Sep-2021 Signature: / Patrick L. COFFMAN