#### 505971927 03/17/2020

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6018635

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
KELLY ERIC BOWMAN	02/19/2020
SPENCER CARTER	06/28/2018
SCOTT JACKSON	08/25/2018
JESSICA COLLYER	02/05/2020
SCOTT CHRISTENSEN	06/25/2018
ABIGAIL CHRISTENSEN	06/25/2018
JOANNA HUGO	02/24/2020
JACOB WARDELL	07/16/2018

#### **RECEIVING PARTY DATA**

Name:	BRIGHAM YOUNG UNIVERSITY	
Street Address:	3760 HAROLD B. LEE LIBRARY	
Internal Address:	TECHNOLOGY TRANSFER OFFICE	
City:	PROVO	
State/Country:	UTAH	
Postal Code:	84602	

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

Property Type	Number	
Application Number:	15960282	

#### **CORRESPONDENCE DATA**

**Fax Number:** (801)531-1929

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.

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

Phone: 801-994-4646
Email: hbabb@kba.law
Correspondent Name: BRIAN C. KUNZLER

Address Line 1: 50 W. BROADWAY, 10TH FLOOR Address Line 4: 51 SALT LAKE CITY, UTAH 84101

ATTORNEY DOCKET NUMBER: 3100-01

NAME OF SUBMITTER: BRIAN C. KUNZLER

PATENT REEL: 052142 FRAME: 0207

505971927

SIGNATURE:	/Brian C. Kunzler/		
DATE SIGNED:	03/17/2020		
Total Attachments: 15			
source=3100-01_Declaration-Assignme	nt#page1.tif		
source=3100-01_Declaration-Assignme	nt#page2.tif		
source=3100-01_Declaration-Assignme	nt#page3.tif		
source=3100-01_Declaration-Assignme	nt#page4.tif		
source=3100-01_Declaration-Assignme	nt#page5.tif		
source=3100-01_Declaration-Assignme	nt#page6.tif		
source=3100-01_Declaration-Assignme	nt#page7.tif		
source=3100-01_Declaration-Assignme	nt#page8.tif		
source=3100-01_Declaration-Assignme	nt#page9.tif		
source=3100-01_Declaration-Assignme	nt#page10.tif		
source=3100-01_Declaration-Assignme	source=3100-01_Declaration-Assignment#page11.tif		
source=3100-01_Declaration-Assignment#page12.tif			
source=3100-01_Declaration-Assignment#page13.tif			
source=3100-01_Declaration-Assignme	source=3100-01_Declaration-Assignment#page14.tif		
source=3100-01_Declaration-Assignme	nt#page15.tif		

PATENT REEL: 052142 FRAME: 0208

Title of Invention: COLLABORATIVE EDITING OF MANUFACTURING DRAWINGS

As a below named inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[X] United States application or PCT international application number <u>15/960,282</u> filed on <u>April 23, 2018</u>.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the Utah Valley Patent Docket Number provided above in the header of this document:

Whereas, Brigham Young University, a corporation of Utah having a place of business at 3760 HBLL, Technology Transfer Office, Brigham Young University, Provo, Utah 84602-6844 (herein referred to as "Brigham Young University"), desires to acquire, and each undersigned inventor desires to grant to Brigham Young University, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to Brigham Young University (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to Brigham Young University, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by Brigham Young University, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in Brigham Young University, its

successors, legal representatives, and assigns, whenever requested by Brigham Young University, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to Brigham Young University and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants Brigham Young University, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of Utah, and any disputes will be resolved in a Utah state court or federal court sited in Utah.

(1) Legal Name of inventor: Kerly Eric bowman	
Signature:	Date: Feb. 19, 2020
(2) Legal Name of Inventor: Spencer Carter	
Signature:	Date:
(3) Legal Name of Inventor: Scott Jackson	
Signature:	Date:
(4) Legal Name of Inventor: Jessica Collyer	
Signature:	Date:

(5) Legal Name of Inventor: Scott Christensen	
Signature:	Date:
(6) Legal Name of Inventor: Abigail Christensen	
Signature:	Date:
(7) Legal Name of Inventor: Joanna Hugo	
Signature: Jany Jaffe	Date: 2/24/20
(8) Legal Name of Inventor: Jacob Wardell	
Signature:	Date:

Title of Invention: COLLABORATIVE EDITING OF MANUFACTURING DRAWINGS

As a below named inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[X] United States application or PCT international application number <u>15/960,282</u> filed on <u>April 23, 2018</u>.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the Utah Valley Patent Docket Number provided above in the header of this document;

Whereas, Brigham Young University, a corporation of Utah having a place of business at 3760 HBLL, Technology Transfer Office, Brigham Young University, Provo, Utah 84602-6844 (herein referred to as "Brigham Young University"), desires to acquire, and each undersigned inventor desires to grant to Brigham Young University, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to Brigham Young University (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to Brigham Young University, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by Brigham Young University, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in Brigham Young University, its

successors, legal representatives, and assigns, whenever requested by Brigham Young University, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to Brigham Young University and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants Brigham Young University, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of Utah, and any disputes will be resolved in a Utah state court or federal court sited in Utah.

(1)	Legal Name of Inventor: Kelly Eric Bowman				
	Signature:	_ Date:_	- Control of the Cont	######################################	
(2)	Legal Name of Inventor: Spencer Carter				
	Signature:	Date:_	June	28,	2019
(3)	Legal Name of Inventor: Scott Jackson		,		
	Signature:	_ Date:_			
(4)	Legal Name of Inventor: Jessica Collyer				
	Signature:	_Date:	THE PART AND ADDRESS OF THE PA		

(5) Legal Name of Inventor: Scott Christensen		
Signature:	Date:	
(6) Legal Name of Inventor: Abigail Christensen	·	
Signature:	Date:	
(7) Legal Name of Inventor: Joanna Hugo		
Signature:	Date:	
(8) Legal Name of Inventor: Jacob Wardell		
Signature:	Doto	

Title of Invention: COLLABORATIVE EDITING OF MANUFACTURING DRAWINGS

As a below named inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[X] United States application or PCT international application number <u>15/960,282</u> filed on <u>April 23, 2018</u>.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the Utah Valley Patent Docket Number provided above in the header of this document:

Whereas, Brigham Young University, a corporation of Utah having a place of business at 3760 HBLL, Technology Transfer Office, Brigham Young University, Provo, Utah 84602-6844 (herein referred to as "Brigham Young University"), desires to acquire, and each undersigned inventor desires to grant to Brigham Young University, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to Brigham Young University (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to Brigham Young University, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by Brigham Young University, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in Brigham Young University, its

successors, legal representatives, and assigns, whenever requested by Brigham Young University, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to Brigham Young University and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants Brigham Young University, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of Utah, and any disputes will be resolved in a Utah state court or federal court sited in Utah.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

(1) Legal Name of inventor: Kelly Eric Bowman	
Signature:	Date:
(2) Legal Name of Inventor: Spencer Carter	
Signature:	Date:
(3) Legal Name of Inventor: Scott Jackson	
Signature: Neth land	Date: 6/25/18
(4) Legal Name of Inventor: Jessica Collyer	
Signature:	Date:

Page 2 of 3

(5)	Legal Name of Inventor: Scott Christensen		
	Signature: M. Scott Christensen	_ Date:_	6/25/2018
(6)	Legal Name of Inventor: Abigail Christensen		
	Signature: Abigail Christensen	_Date:_	6/25/2018
(7)	Legal Name of Inventor: Joanna Hugo		
	Signature:	_ Date:_	
(8)	Legal Name of Inventor: Jacob Wardell		
	Signature	Data	

Title of Invention: COLLABORATIVE EDITING OF MANUFACTURING DRAWINGS

As a below named inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[X] United States application or PCT international application number <u>15/960,282</u> filed on <u>April 23, 2018</u>.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the Utah Valley Patent Docket Number provided above in the header of this document;

Whereas, Brigham Young University, a corporation of Utah having a place of business at 3760 HBLL, Technology Transfer Office, Brigham Young University, Provo, Utah 84602-6844 (herein referred to as "Brigham Young University"), desires to acquire, and each undersigned inventor desires to grant to Brigham Young University, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto:

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to Brigham Young University (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to Brigham Young University, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by Brigham Young University, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in Brigham Young University, its

successors, legal representatives, and assigns, whenever requested by Brigham Young University, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to Brigham Young University and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants Brigham Young University, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of Utah, and any disputes will be resolved in a Utah state court or federal court sited in Utah.

(1) Legal Name of Inventor: Kelly Eric Bowman	
Signature:	Date:
(2) Legal Name of Inventor: Spencer Carter	
Signature:	Date:
(3) Legal Name of Inventor: Scott Jackson	
Signature:	Date:
(4) Legal Name of Inventor: <b>Jessica Collyer</b>	
Signature: JUSUW College	Date:2/5/2020

(5)	Legal Name of Inventor: Scott Christensen	
	Signature:	_ Date:
(6)	Legal Name of Inventor: Abigail Christensen	
	Signature:	Date:
(7)	Legal Name of Inventor: Joanna Hugo	
	Signature:	Date:
(8)	Legal Name of Inventor: Jacob Wardell	
	Signature:	Date

Title of Invention: COLLABORATIVE EDITING OF MANUFACTURING DRAWINGS

As a below named inventor, I hereby declare that:

This declaration is directed to the attached application, or (if following box is checked):

[X] United States application or PCT international application number 15/960.282 filed on April 23, 2018

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, the undersigned inventor(s) has/have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the Utah Valley Patent Docket Number provided above in the header of this document;

Whereas, Brigham Young University, a corporation of Utah having a place of business at 3760 HBLL, Technology Transfer Office, Brigham Young University, Provo, Utah 84602-6844 (herein referred to as "Brigham Young University"), desires to acquire, and each undersigned inventor desires to grant to Brigham Young University, the entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, each undersigned inventor ("ASSIGNOR") hereby sells or has sold, assigns or has assigned, and otherwise transfers or has transferred to Brigham Young University (the "ASSIGNEE"), its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, each undersigned inventor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to Brigham Young University, its successors, legal representatives, and assigns, the entire worldwide right, title, and interest in and to the same to be held and enjoyed by Brigham Young University, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made; and each undersigned inventor agrees to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in Brigham Young University, its

successors, legal representatives, and assigns, whenever requested by Brigham Young University, its successors, legal representatives, or assigns.

Each undersigned inventor acknowledges their prior and ongoing obligations to sell, assign, and transfer the rights under this Assignment to Brigham Young University and is unaware of any reason why they may not have the full and unencumbered right to sell, assign, and transfer the rights hereby sold, assigned, and transferred, and has not executed, and will not execute, any document or instrument in conflict herewith. Each undersigned inventor also hereby grants Brigham Young University, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of Utah, and any disputes will be resolved in a Utah state court or federal court sited in Utah.

(1) Legal Name of Inventor: Kelly Eric Bowman	
Signature:	Date:
(2) Legal Name of Inventor: Spencer Carter	
Signature:	Date:
(3) Legal Name of Inventor: Scott Jackson	
Signature:	Date:
(4) Legal Name of Inventor: Jessica Collyer	
Signature:	Date:

(5) Legal Name of Inventor: Scott Christensen	
Signature:	Date:
(6) Legal Name of Inventor: Abigail Christensen	
Signature:	Date:
(7) Legal Name of Inventor: Joanna Hugo	
Signature:	Date:
(8) Legal Name of Inventor: Jacob Wardell	
Signature: Mardill	Date: July 16, 2018