506715085 06/15/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6761903

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KIRANKUMAR RAKA	06/09/2021
SEAN CALLOT	06/09/2021
ALEX THOMAS	06/10/2021
VAMSI NALLAGATLA	06/09/2021
VEENA RADHAKRISHNA	06/09/2021
FARIS JADADIC	06/10/2021
CHRISTOPHER ADDISON	06/09/2021
RAJARAJAN VENKATESAN	06/11/2021

RECEIVING PARTY DATA

Name:	FMR LLC
Street Address:	245 SUMMER STREET
City:	BOSTON
State/Country:	MASSACHUSETTS
Postal Code:	02210

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17339482

CORRESPONDENCE DATA

Fax Number: (617)526-9899

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: 617-526-9427

Email: tamoore@proskauer.com
Correspondent Name: PROSKAUER ROSE LLP

Address Line 1: ONE INTERNATIONAL PLACE

Address Line 4: BOSTON, MASSACHUSETTS 02110

ATTORNEY DOCKET NUMBER:	FID-427
NAME OF SUBMITTER:	ALAN S. TERAN
SIGNATURE:	/Alan S Teran/

PATENT 506715085 REEL: 056542 FRAME: 0242

DATE SIGNED:	06/15/2021
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 16	
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INVENTOR(S): Raka et al. CONFIRMATION NO.: 4976

APPLICATION NO.: 17/339,482 FILING DATE: June 4, 2021

TITLE: SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION

FRAMEWORK

DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT

I. DECLARATION

As the below named inventor, I hereby make the following declarations with respect to the above-identified patent application:

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 above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

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.

II. ASSIGNMENT

WHEREAS, I, <u>Kirankumar Raka</u>, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

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which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

III. SIGNATURE BLOCK

IN TESTIMO forth below.	ONY WHEREO	F, I have hereu	nto set my han	d-and affixed my sea	al on the date set
tum telow.			Inventor:	Kirankumar Raka	F 10012076
NOTARIZATION				Kudukundi Raka	061021
State/Commonwealt County of	h of)) ss			
On this d personally appeared <u>k</u> which was/were preceding or attached	Cirankumar Raka	a, proved to me	through satisfa		lentification,
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WITNESS Witness Signature:	Brave				
Witness Date:	<u>Рна</u> м 06	jal Kira 09/2021	un Rake	<u> </u>	

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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.

II. ASSIGNMENT

WHEREAS, I, <u>Sean Callot</u>, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

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III. SIGNATURE BLOCK

IN TESTIMO! forth below.	VY WHEREOF , I he	ive hereunt	o set my hand	d-and affixed my seal of the control	on the date set
NOTARIZATION					
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INVENTOR(S): Raka et al. CONFIRMATION NO.: 4976

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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.

II. ASSIGNMENT

WHEREAS, I, <u>Alex Thomas</u>, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

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I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

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		Inventor:	MACHES
NOTARIZATION			Alex Thomas
State/Commonwealth County of	of)) ss		
personally appeared Ale	ex Thomas, proved to me through the extra to be extra	ugh satisfactor	the undersigned notary public, y evidence of identification, which whose name is signed on the preceding
		Notary Pul	
		My Comm	nission Expires:
WITNESS			
Witness Signature:	<u> </u>		
Witness Name:	Mchillini Sarthin	e)	
Witness Date:	10 Nune 20021		

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INVENTOR(S): Raka et al. CONFIRMATION NO.: 4976

APPLICATION NO.: 17/339,482 FILING DATE: June 4, 2021

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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.

II. ASSIGNMENT

WHEREAS, I, <u>Vamsi Nallagatla</u>, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

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IN TESTIMO	NY WHEREO	F, I have hereur	nto set my han	nd-and affixed my seal on the date set
form below.			Inventor	N. Vansi Mohan Redy Vansi Nallagatia
NOTARIZATION				(and a consideration of the constant of the c
State/Commonwealt County of	b of)) ss		
nersonally appeared V	'amsi Nallagatla	, proved to me	through satisf	, the undersigned notary public, actory evidence of identification, person whose name is signed on the
			Notary Pr My Comi	ublic mission Expires:
<u>WITNESS</u>				
Witness Signature:	Ragini	<u> Challa</u>		
Witness Name:	<u>RAGIN</u>	LCHALL	Α	
Witness Date:	06/0	29 2021		

INVENTOR(S): Raka et al. CONFIRMATION NO.: 4976

APPLICATION NO.: 17/339,482 FILING DATE: June 4, 2021

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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.

II. ASSIGNMENT

WHEREAS, I, <u>Veena Radhakrishna</u>, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

America Decket No. 110-427 U.S. Application No. 177139,482 Page 2 of 2

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III. SIGNATURE BLOCK

State/Commonwealth of) SS County of SS On this a day of SS 2021 before me, the undersigned notary put personally appeared Vena Radhskrishna, proved to me through satisfactory evidence of identification which was/were to be the person whose name is signed preceding or attached document in my presence. Notary Public My Commission Expires			Inventor (2)	(astronous Cadhaisteanna
County of 188 On this day of	NOTARIZATION		0.66000.0	***********
personally appeared Vectia Radhakrishna, proved to me through satisfactory evidence of idention which was/were to be the person whose name is signed preceding or attached document in my presence Notary Public		f))#8		
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· · · · · · · · · · · · · · · · · · ·	Witness Name:	K. Magesh		
** ** ** ** ** ** ** ** ** ** ** ** **	Witness Date:			

INVENTOR(S): Raka et al. CONFIRMATION NO.: 4976

APPLICATION NO.: 17/339,482 FILING DATE: June 4, 2021

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II. ASSIGNMENT

WHEREAS, I, <u>Faris Jadadic</u>, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

which said letters patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made. I hereby convey all of my rights arising under or pursuant to any and all United States laws and international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for letters patent, including but not limited to any cause(s) of action and damages accruing prior to this assignment. I hereby acknowledge that this assignment, being of my entire right, title and interest in and to said invention(s), carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all letters patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all letters patent to ASSIGNEE in its own name as assignee of my entire right, title and interest therein.

I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

I hereby further agree to provide statements or testimony in any interference or other proceeding in which said invention(s) or any application or patent directed thereto may be involved.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue such letters patent as shall be granted upon said application, or applications based thereon, to said ASSIGNEE, its successors, assigns, or legal representatives.

III. SIGNATURE BLOCK

IN TESTIMON forth below.	Y WHEREOF, I have hereu	nto set my han	d-and affixed my	seal on the date set
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124050249v1

INVENTOR(S): Raka et al. CONFIRMATION NO.: 4976

APPLICATION NO.: 17/339,482 FILING DATE: June 4, 2021

TITLE: SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION

FRAMEWORK

DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT

I. DECLARATION

As the below named inventor, I hereby make the following declarations with respect to the above-identified patent application:

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 above-identified application;

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claims;

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known by me to be material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information known by me which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application; and

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.

II. ASSIGNMENT

WHEREAS, I, <u>Christopher Addison</u>, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, I have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the invention(s) described in said application, together with my entire right, title and interest in and to said application and such letters patent as may issue thereon or claim priority under United States law or international convention, including but not limited to non-provisionals, continuations, divisionals, reissues, reexaminations, extensions, and substitutions of said application or such letters patent, and any right, title and interest I may have in provisional applications to which said application claims priority; said invention(s), applications and letters patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for

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I hereby further agree for myself and my executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including the execution of non-provisional, substitution, continuation, divisional, reissue, reexamination, or corresponding foreign or international patent applications.

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Witness Name:	Arlene Addie	an	
Witness Date:	June 9th 20	21	

124050294v1

INVENTOR(S): Raka et al. CONFIRMATION NO.: 4976

APPLICATION NO.: 17/339,482 FILING DATE: June 4, 2021

TITLE: SYSTEMS AND METHODS FOR AN END-TO-END AUTOMATION

FRAMEWORK

DECLARATION PURSUANT TO 37 C.F.R. § 1.63 AND ASSIGNMENT

I. DECLARATION

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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.

II. ASSIGNMENT

WHEREAS, I, <u>Rajarajan Venkatesan</u>, have invented, solely or jointly, one or more inventions described in the above-identified patent application for letters patent; and

WHEREAS, FMR LLC (hereinafter "ASSIGNEE"), a limited liability company organized and existing under the laws of the State of Delaware, and having a usual place of business at 245 Summer Street, Boston, MA 02210, desires to acquire an interest therein, in accordance with agreements duly entered into with me.

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Thereby further agree for myself and my executors and administrators to execute upon request. any other tawful decuments and likewise to perform any other lawful acts which may be decided necessary to secure fully the aforesaid invention(s) to said ASSIGNEE, its successors, assigns, and equirepresentatives, but at its or their expense and charges, including the execution of non-provisional. substantion, continuation, diversional, receive, recommission, or corresponding foreign or international patent applications.

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I hereby authorize and request the Director of the United States Patent and Trademark Office to processors letters paient as shall be granted upon said application, or applications based thereon, in said A SAIGNEE IN AUGUSTON ASSESS, OF REGAL REPRESENTATIVES

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