# 503832486 05/18/2016

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3879134

SUBMISSION TYPE:		NEW ASSIGN	NEW ASSIGNMENT			
IATURE OF CONVEYAN	ASSIGNMEN	ASSIGNMENT				
CONVEYING PARTY DA	ATA					
		Name	Name		Execution Date	
WILLIAM LANGFORD					05/09/2016	
AMANDA GHASSAEI					05/09/2016	
NEIL GERSHENFELD			05/09/2016			
RECEIVING PARTY DA	ТА					
Name:	MASSAC	MASSACHUSETTS INSTITUTE OF TECHNOLOGY				
Street Address:	77 MASSACHUSETTS AVENUE					
City:	CAMBRI	CAMBRIDGE				
State/Country:	MASSAC	HUSETTS				
Postal Code:	02139					
	Total: 1					
PROPERTY NUMBERS	Total: 1	Num	her	7		
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## **Total Attachments: 11**

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Form PTO-1595 (Rev. 06-12) OMB No. 0651-0027 (exp. 04/30/2015)

U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office

RECORDATION FORM COVER SHEET					
	TS ONLY				
	ise record the attached documents or the new address(es) below.				
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)				
Milliom Koil anatard	Name: Massachusetts Institute of Technology				
William Kai Langford	Internal Address:				
Additional name(s) of conveying party(ies) attached?					
3. Nature of conveyance/Execution Date(s): Execution Date(s) 05-09-2016	Street Address: 77 Massachusetts Avenue				
Assignment Merger	Panhalan				
Security Agreement Change of Name	City: Cambridge State: MA				
Joint Research Agreement					
Government Interest Assignment Executive Order 9424, Confirmatory License	Country. USA Zip: 02139				
Other	Additional name(s) & address(es) attached? [] Yes 📓 No				
<ul> <li>4. Application or patent number(s): This</li> <li>A. Patent Application No (s)</li> <li>15/034,974</li> </ul>	document serves as an Oath/Declaration (37 CFR 1.63). B. Patent No (s)				
	ached? Yes 🐻 No				
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1				
Name: Robert P. Greenspoon					
Internal Address: 27th Floor	7. Total fee (37 CFR 1.21(h) & 3.41) \$				
	Authorized to be charged to deposit account				
Street Address: 333 N. Michigan Ave.	Enclosed				
	None required (government interest not affecting title)				
City Chicago	8. Payment Information				
State: IL Zip: 60601					
Phone Number: 312-551-9500					
Docket Number MIT-02	Deposit Account Number 50-5145				
Email Addressrpg@fg-law.com	Authonized User Name Robert P. Greenspoon				
9. Signature: /Robert P. Greenspoon/	05-18-2016				
Signature	Date				
Robert P. Greenspoon	Total number of pages including cover 11				
Name of Person Signing Documents to be recorded (including cover sheet)	should be fexed to (671) 273-0140, or mailed to:				
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450					

ADDITIONAL CONVEYING PARTIES: Amanda Ghassaei

Neil Gershenfeld

#### DECLARATION AND ASSIGNMENT OF PATENT APPLICATION

As a below named inventor, I hereby submit this combined Declaration and Assignment of Patent Application.

#### DECLARATION OF WILLIAM KAI LANGFORD

I, William Kai Langford, being a resident of the United States of America, having an address at 129 Franklin St., apt. 119, Cambridge, Massachusetts 02139, hereby declare as follows. This declaration is directed to United States Application No. <u>15/034.974</u>, filed on May 6, 2016, entitled **Self-Assembling Assemblers** (the "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 application.

I hereby acknowledge that a "person may not execute an oath or declaration unless the person has reviewed and understands the contents of the application, including the claims, and is aware of the duty to disclose to the Office all information known to be material to patentability as defined in § 1.56," and state that I have complied with these requirements.

I hereby acknowledge that any willful false statement made in this Declaration is punishable by fine or imprisonment of not more than five (5) years, or both.

I hereby authorize and request the attorneys of record in the Application to insert in this Declaration and Assignment of Patent Application the filing date and serial number of the Application when officially known, and if needed the date of execution of this Declaration and Assignment.

#### ASSIGNMENT

#### WHEREAS, I:

William Kai Langford, being a citizen and resident of the United States of America, having an address at 129 Franklin St., apt. 119, Cambridge, Massachusetts 02139 have made new and useful processes, machines, articles of manufacture, compositions of matter, ornamental designs and/or improvements in the Application, said Application being filed with this Assignment.

WHEREAS, Massachusetts Institute of Technology, having a place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 and who, together with its successors and assigns ("Assignee"), is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited.

NOW, THEREFORE, for valuable consideration furnished by Assignee to me, receipt and sufficiency of which I hereby acknowledge, I hereby, without reservations:

1. Assign, transfer, and convey to **Assignce** the entire right, title, and interest in and to the Application, the inventions and discoveries described in the Application, any and all other applications for Patents on said inventions and discoveries in other countries, including all divisional, renewal, substitute, continuation, continuation-in-part and Convention applications based in whole or in part upon said inventions or discoveries and any and all Patents, reissues, and extensions of Patents granted for said inventions and discoveries, and every priority right that is or may be predicated upon or arise from said inventions and discoveries, from the Application.

2. Authorize Assignee to file patent applications in any or all countries for any or all said inventions and discoveries from the Application in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise.

3. Authorize and request the Commissioner for Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all rights in the Application and Patents issuing therefrom to Assignee, as assignee of the entire right, title, and interest therein or otherwise as Assignee may direct.

4. Warrant that I have not knowingly conveyed to others any right in said inventions and discoveries or any license to use the same or to make, use, or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to Assignce without encumbrance.

5. Bind my heirs, legal representatives, and assigns, as well as myself, to do, upon **Assignee's** request and at **Assignee's** expense, but without additional consideration to me or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the said Letters Patent shall be held and enjoyed by **Assignee** as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver the **Assignee** all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by **Assignee**; to communicate to **Assignee** all facts known to me relating to said inventions and discoveries or the history thereof; to furnish **Assignee** with any and all documents, photographs, models, samples, and other physical exhibits in my control or in the control of my heirs, legal representatives, or assigns which may be useful or establishing the facts of our conception, disclosures, and reduction to practice of said inventions and discoveries; and to testify to the same in any interference, other litigation, or proceeding related hereto.

6. The assignment expressly includes the conveyance to Assignee of the right to bring suit for and to collect damages for any infringement of a patent issuing from the Application, and for a reasonable royalty for any use of 35 USC § 154(d) provisional rights, and for any other cause of action arising from Assignee's ownership of a patent issuing from the Application including any violation by others of any federal or state tort or antitrust or unfair competition laws, and in and to any and all reissues, reexaminations and extensions of a Patent from the Application, these rights to be held and enjoyed by **Assignee**, for its own use and benefit and the use or benefit of its successors and assigns, to the end of the full term of the Patent from the Application, as fully and entirely as the same would have been held and enjoyed by me, had this sale and assignment not been made.

LEGAL NAME OF INVENTOR

Inventor: William Kai Langford

Date: <u>May 9, 2016</u>

Signature:

#### DECLARATION AND ASSIGNMENT OF PATENT APPLICATION

As a below named inventor, I hereby submit this combined Declaration and Assignment of Patent Application.

#### DECLARATION OF AMANDA GHASSAEI

I. Amanda Ghassaei, being a resident of the United States of America, having an address at 41 Tremont St., Cambridge, Massachusetts 02139, hereby declare as follows. This declaration is directed to United States Application No. <u>15/034,974</u>, filed on May 6, 2016, entitled **Self-Assembling Assemblers** (the "Application"). The above-identified Application was made or authorized to be made by mc. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that a "person may not execute an oath or declaration unless the person has reviewed and understands the contents of the application, including the claims, and is aware of the duty to disclose to the Office all information known to be material to patentability as defined in § 1.56," and state that I have complied with these requirements.

I hereby acknowledge that any willful false statement made in this Declaration is punishable by fine or imprisonment of not more than five (5) years, or both.

I hereby authorize and request the attorneys of record in the Application to insert in this Declaration and Assignment of Patent Application the filing date and serial number of the Application when officially known, and if needed the date of execution of this Declaration and Assignment.

#### ASSIGNMENT

#### WHEREAS, E

Amanda Ghassaei, being a citizen and resident of the United States of America, having an address at 41 Tremont St., Cambridge, Massachusetts 02139 have made new and useful processes, machines, articles of manufacture, compositions of matter, ornamental designs and/or improvements in the Application, said Application being filed with this Assignment.

WHEREAS. Massachusetts Institute of Technology, having a place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 and who, together with its successors and assigns ("Assignee"), is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited.

NOW, THEREFORE, for valuable consideration furnished by Assignee to me, receipt and sufficiency of which I hereby acknowledge, I hereby, without reservations:

1. Assign, transfer, and convey to Assignee the entire right, title, and interest in and to the Application, the inventions and discoveries described in the Application, any and all other applications for Patents on said inventions and discoveries in other countries, including all divisional, renewal, substitute, continuation, continuation-in-part and Convention applications based in whole or in part upon said inventions or discoveries and any and all Patents, reissues, and extensions of Patents granted for said inventions and discoveries, and every priority right that is or may be predicated upon or arise from said inventions and discoveries, from the Application.

2. Authorize Assignee to file patent applications in any or all countries for any or all said inventions and discoveries from the Application in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise.

3. Authorize and request the Commissioner for Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all rights in the Application and Patents issuing therefrom to Assignee, as assignee of the entire right, title, and interest therein or otherwise as Assignee may direct.

4. Warrant that I have not knowingly conveyed to others any right in said inventions and discoveries or any license to use the same or to make, use, or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to **Assignee** without encumbrance.

5. Bind my heirs, legal representatives, and assigns, as well as myself, to do, upon **Assignee's** request and at **Assignee's** expense, but without additional consideration to me or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the said Letters Patent shall be held and enjoyed by **Assignee** as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver the **Assignee** all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by **Assignee**; to communicate to **Assignee** all facts known to me relating to said inventions and discoveries or the history thereof; to furnish **Assignee** with any and all documents, photographs, models, samples, and other physical exhibits in my control or in the control of my heirs, legal representatives, or assigns which may be useful or establishing the facts of our conception, disclosures, and reduction to practice of said inventions and discoveries; and to testify to the same in any interference, other litigation, or proceeding related hereto.

6. The assignment expressly includes the conveyance to Assignee of the right to bring suit for and to collect damages for any infringement of a patent issuing from the Application, and for a reasonable royalty for any use of 35 USC § 154(d) provisional rights, and for any other cause of action arising from Assignee's ownership of a patent issuing from the Application including any violation by others of any federal or state tort or antitrust or unfair competition laws, and in and to any and all reissues, reexaminations and extensions of a Patent from the Application, these rights to be held and enjoyed by **Assignee**, for its own use and benefit and the use or benefit of its successors and assigns, to the end of the full term of the Patent from the Application, as fully and entirely as the same would have been held and enjoyed by me, had this sale and assignment not been made.

.....

## LEGAL NAME OF INVENTOR

 $\sim$ 

Inventor: Amanda Ghassaei

Date: <u>May 9, 2016</u>

Signature: •

## DECLARATION AND ASSIGNMENT OF PATENT APPLICATION

As a below named inventor, I hereby submit this combined Declaration and Assignment of Patent Application.

### DECLARATION OF NEIL GERSHENFELD

I, Neil Gershenfeld, being a resident of the United States of America, having an address at 50 Orchard St., Cambridge, Massachusetts 02140, hereby declare as follows. This declaration is directed to United States Application No. <u>15/034,974</u>, filed on May 6, 2016, entitled Self-Assembling Assemblers (the "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 application.

I hereby acknowledge that a "person may not execute an oath or declaration unless the person has reviewed and understands the contents of the application, including the claims, and is aware of the duty to disclose to the Office all information known to be material to patentability as defined in § 1.56," and state that I have complied with these requirements.

I hereby acknowledge that any willful false statement made in this Declaration is punishable by fine or imprisonment of not more than five (5) years, or both.

I hereby authorize and request the attorneys of record in the Application to insert in this Declaration and Assignment of Patent Application the filing date and serial number of the Application when officially known, and if needed the date of execution of this Declaration and Assignment.

#### ASSIGNMENT

#### WHEREAS, I:

Neil Gershenfeld, being a citizen and resident of the United States of America, having an address at 50 Orchard St., Cambridge, Massachusetts 02140 have made new and useful processes, machines, articles of manufacture, compositions of matter, ornamental designs and/or improvements in the Application, said Application being filed with this Assignment.

WHEREAS, Massachusetts Institute of Technology, having a place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 and who, together with its successors and assigns ("Assignee"), is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited.

NOW, THEREFORE, for valuable consideration furnished by Assignce to me, receipt and sufficiency of which I hereby acknowledge, I hereby, without reservations:

1. Assign, transfer, and convey to Assignee the entire right, title, and interest in and to the Application, the inventions and discoveries described in the Application, any and all other applications for Patents on said inventions and discoveries in other countries, including all divisional, renewal, substitute, continuation, continuation-in-part and Convention applications based in whole or in part upon said inventions or discoveries and any and all Patents, reissues, and extensions of Patents granted for said inventions and discoveries, and every priority right that is or may be predicated upon or arise from said inventions and discoveries, from the Application.

2. Authorize Assignee to file patent applications in any or all countries for any or all said inventions and discoveries from the Application in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise.

3. Authorize and request the Commissioner for Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all rights in the Application and Patents issuing therefrom to Assignee, as assignce of the entire right, title, and interest therein or otherwise as Assignee may direct.

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5. Bind my heirs, legal representatives, and assigns, as well as myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to me or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver the Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to me relating to said inventions and discoveries or the history thereof; to furnish Assignee with any and all documents, photographs, models, samples, and other physical exhibits in my control or in the control of my heirs, legal representatives, or assigns which may be useful or establishing the facts of our conception, disclosures, and reduction to practice of said inventions and discoveries; and to testify to the same in any interference, other litigation, or proceeding related hereto.

6. The assignment expressly includes the conveyance to Assignee of the right to bring suit for and to collect damages for any infringement of a patent issuing from the Application, and for a reasonable royalty for any use of 35 USC § 154(d) provisional rights, and for any other cause of action arising from Assignee's ownership of a patent issuing from the Application including any violation by others of any federal or state tort or antitrust or unfair competition laws, and in and to any and all reissues, reexaminations

and extensions of a Patent from the Application, these rights to be held and enjoyed by **Assignee**, for its own use and benefit and the use or benefit of its successors and assigns, to the end of the full term of the Patent from the Application, as fully and entirely as the same would have been held and enjoyed by me, had this sale and assignment not been made.

## LEGAL NAME OF INVENTOR

Inventor: Neil Gershenfeld

Date: <u>May 9, 2016</u>

Ľ, Signature:

**RECORDED: 05/18/2016**