505118072 09/28/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5164833

SUBMISSION TYPE:	NEW ASSIGNMENT		
ATURE OF CONVEYANCE: ASSIGNMENT		ASSIGNMENT	
CONVEYING PARTY D	ΑΤΑ		
		Name	Execution Date
NOBORU KAWAGUCHI	GUCHI		08/21/2018
TOMOYA HATTORI		C	8/21/2018
MASAKI HARUNA		C	8/23/2018
(OJI HIROSE		С)8/21/2018
KEN UEDA		С)8/28/2018
HINGO KIMURA		С	8/28/2018
RECEIVING PARTY DA			
Name:	MITSU	BISHI ELECTRIC CORPORATION	
Street Address:	7-3, M	ARUNOUCHI 2-CHOME, CHIYODA-KU	
City:	ΤΟΚΥΟ)	
Chata / Carrieter /	JAPAN		
State/Country:			
-	100-83		
Postal Code:	100-83		
Postal Code:	100-83		
Postal Code: PROPERTY NUMBERS Property Type	100-83	10	
Postal Code: PROPERTY NUMBERS Property Type Application Number:	100-83	10 Number	
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Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if Phone: Email: Correspondent Name: Address Line 1:	Total: 1	Number 29664938 (703)390-1277 <i>o</i> the e-mail address first; if that is unsuccessful, i <i>d</i> ; if that is unsuccessful, it will be sent via US Mail (703)390-9051 info@sbpatentlaw.com STUDEBAKER & BRACKETT PC 8255 GREENSBORO DRIVE	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i> <i>using a fax number, if</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 2:	Total: 1	Number 29664938 (703)390-1277 o the e-mail address first; if that is unsuccessful, i d; if that is unsuccessful, it will be sent via US Mai (703)390-9051 info@sbpatentlaw.com STUDEBAKER & BRACKETT PC	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	Total: 1	Number 29664938 (703)390-1277 o the e-mail address first; if that is unsuccessful, i d; if that is unsuccessful, it will be sent via US Mail (703)390-9051 info@sbpatentlaw.com STUDEBAKER & BRACKETT PC 8255 GREENSBORO DRIVE SUITE 300 TYSONS, VIRGINIA 22102	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: TTORNEY DOCKET NU	Total: 1	Number 29664938 (703)390-1277 o the e-mail address first; if that is unsuccessful, i d; if that is unsuccessful, it will be sent via US Mail (703)390-9051 info@sbpatentlaw.com STUDEBAKER & BRACKETT PC 8255 GREENSBORO DRIVE SUITE 300 TYSONS, VIRGINIA 22102	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: TTORNEY DOCKET NUME IAME OF SUBMITTER:	Total: 1	Number 29664938 (703)390-1277 O the e-mail address first; if that is unsuccessful, i d; if that is unsuccessful, it will be sent via US Mail (703)390-9051 info@sbpatentlaw.com STUDEBAKER & BRACKETT PC 8255 GREENSBORO DRIVE SUITE 300 TYSONS, VIRGINIA 22102 002500-ME0266	
Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i>	Total: 1	Number 29664938 (703)390-1277 O the e-mail address first; if that is unsuccessful, i d; if that is unsuccessful, it will be sent via US Mail (703)390-9051 info@sbpatentlaw.com STUDEBAKER & BRACKETT PC 8255 GREENSBORO DRIVE SUITE 300 TYSONS, VIRGINIA 22102 002500-ME0266 DONALD R. STUDEBAKER	

Total Attachments: 12	
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COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

Title of Invention:	
JOINT DRIVING MEMBER FOR ROBOT	
私は、以下に記名された発明者として、ここに下記 の通り宣言する:	As a below named inventor, I hereby declare that:
本宣言書は、以下の出願に対するものである: 図 添付された出願、あるいは、	This declaration is directed to:
 □ 米国出顧番号またはPCT国際出願番号は、 であり、且つ の日に出願された出願(該当 する場合) 	United States application or PCT international application number
9 つ 場合) 上記出願書(明細書及び図面)は、私が作成したもの か、あるいは私がその作成を許可したものである。	The above-identified application was made or authorized to be made by me.
私は、本米国出願の請求範囲で記載された発明に対	I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
する原発明者であるか、或いは、原共同発明者であると信じている。	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.
	STATEMENT OF ACCURATE TRANSLATION IN ACCORDANCE WITH 37 CFR 1.69(b):
私は、ここでの宣誓または陳述において故意に偽り を述べた場合、合衆国法典第18巻第1001条に基づ き、罰金あるいは5年以下の懲役、または、両方の 懲罰を受けることを認める。	The Declaration and Assignment for Patent and Design Applications is an accurate translation of the corresponding English language Declaration and Assignment for Patent and Design Applications
	Signature: <i>H</i> Date: <u>11/15/2012</u>
,	

Page 1 of 12

STUDEBAKER BRACKETT PC

WHEREAS the undersigned, hereinafter referred to as the assignor, has invented a certain improvement relating to the above identified application.

The inventor declaration for said application is combined herewith.

AND WHEREAS <u>MITSUBISHI ELECTRIC CORPORATION</u> of <u>7-3</u>, <u>Marunouchi 2-chome</u>, <u>Chivoda-ku</u>, <u>Tokyo 100-8310 JAPAN</u>, hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assigner might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

The undersigned hereby grants the law firm of STUDEBAKER & BRACKETT PC the power to insert on the Assignment portion of this combined Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

This combined Declaration and Assignment has been executed by the undersigned on the date opposite the undersigned name.

発明者氏名/ Legal Name of Inventor	
	Noboru KAWAGUCHI
発明者の署名/ Signature	日付/ Date
Noborn Kawaguchi	August 21, 2018

Page 2 of 12



COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

Title of Invention:	
JOINT DRIVING MEMBER FOR ROBOT	
私は、以下に記名された発明者として、ここに下記 の通り宣言する:	As a below named inventor, I hereby declare that:
本宣言書は、以下の出願に対するものである: 〇 添付された出願、あるいは、 一 米国出願番号またはPCT国際出願番号は、 であり、且つ の日に出願された出願(該当 する場合)	This declaration is directed to: The attached application, or United States application or PCT international application number
 上記出願書(明細書及び図面)は、私が作成したものか、あるいは私がその作成を許可したものである。 私は、本米国出願の請求範囲で記載された発明に対 	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.
する原発明者であるか、或いは、原共同発明者であ ると信じている。	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. STATEMENT OF ACCURATE TRANSLATION IN ACCORDANCE WITH 37 CFR 1.69(b):
私は、ここでの宣誓または陳述において故意に偽り を述べた場合、合衆国法典第18巻第1001条に基づ き、罰金あるいは5年以下の懲役、または、両方の 懲罰を受けることを認める。	The Declaration and Assignment for Patent and Design Applications is an accurate translation of the corresponding English language Declaration and Assignment for Patent and Design Applications Signature:
	Date: <u>11/15/2012</u>

Page 3 of 12



WHEREAS the undersigned, hereinafter referred to as the assignor, has invented a certain improvement relating to the above identified application.

The inventor declaration for said application is combined herewith.

AND WHEREAS <u>MITSUBISHI ELECTRIC CORPORATION</u> of <u>7-3</u>, <u>Marunouchi 2-chome</u>, <u>Chiyoda-ku</u>, <u>Tokyo 100-8310 JAPAN</u>, hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assigner might or could have held and enjoyed the same, if this assignment had not been made.

AND said assigner hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

The undersigned hereby grants the law firm of STUDEBAKER & BRACKETT PC the power to insert on the Assignment portion of this combined Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

This combined Declaration and Assignment has been executed by the undersigned on the date opposite the undersigned name.

発明者氏名/ Legal Name of Inventor	
	Tomoya HATTORI
発明者の署名/ Signature	日付/ Date
Tomoya Hattori	August 21. 2018

Page 4 of 12



COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

Title of Invention:	
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本宣言書は、以下の出願に対するものである:	This declaration is directed to: The attached application, or United States application or PCT international application number filed on The above-identified application was made or authorized to be made by me.
私は、本米国出願の請求範囲で記載された発明に対	I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
する原発明者であるか、或いは、原共同発明者であ ると信じている。	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. STATEMENT OF ACCURATE TRANSLATION IN
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Page 5 of 12

WHEREAS the undersigned, hereinafter referred to as the assignor, has invented a certain improvement relating to the above identified application.

The inventor declaration for said application is combined herewith.

STUDEBAKER BRACKETT PC

[X] said application to be filed in the United States Patent and Trademark Office;
 [] said application having been filed in the United States Patent and Trademark Office on, __________
 authorization being hereby given to the practitioners associated with <u>STUDEBAKER & BRACKETT PC's</u> <u>CUSTOMER NUMBER 78198</u>, to insert here in parentheses (Application Serial No. ______) the application serial number of said application when known;
 [] said application having been filed under the Patent Cooperation Treaty on _______, as Serial No. _______, the United States of America being designated.

AND WHEREAS <u>MITSUBISHI ELECTRIC CORPORATION</u> of <u>7-3</u>, <u>Marunouchi 2-chome</u>, <u>Chivoda-ku</u>, <u>Tokyo 100-8310 JAPAN</u>, hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all

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AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

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This combined Declaration and Assignment has been executed by the undersigned on the date opposite the undersigned name.

発明者の署名/ Signature

発明者氏名/ Legal Name of Inventor

Masaki HARUNA

Masati Harana

目付/Date Augert. 23. 20/8

Page 6 of 12



COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

Title of Invention:	
JOINT DRIVING MEMBER FOR ROBOT	
私は、以下に記名された発明者として、ここに下記 の通り宣言する:	As a below named inventor, I hereby declare that:
本宣言書は、以下の出願に対するものである:	This declaration is directed to: The attached application, or United States application or PCT international application number
する場合) 上記出願書(明細書及び図面)は、私が作成したもの か、あるいは私がその作成を許可したものである。 私は、本米国出願の請求範囲で記載された発明に対	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.
する原発明者であるか、或いは、原共同発明者であ ると信じている。	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. STATEMENT OF ACCURATE TRANSLATION IN ACCORDANCE WITH 37 CFR 1.69(b) :
私は、ここでの宣誓または陳述において故意に偽り を述べた場合、合衆国法典第18巻第1001条に基づ き、罰金あるいは5年以下の懲役、または、両方の 懲罰を受けることを認める。	The Declaration and Assignment for Patent and Design Applications is an accurate translation of the corresponding English language Declaration and Assignment for Patent and Design Applications
	Signature: <u>7777</u> Date: <u>11/15/2012</u>

Page 7 of 12



WHEREAS the undersigned, hereinafter referred to as the assignor, has invented a certain improvement relating to the above identified application.

The inventor declaration for said application is combined herewith.

[X] said application to be filed in the United States Patent and Trademark Office;
 [] said application having been filed in the United States Patent and Trademark Office on, __________
 authorization being hereby given to the practitioners associated with <u>STUDEBAKER & BRACKETT PC's</u> <u>CUSTOMER NUMBER 78198</u>, to insert here in parentheses (Application Serial No.______) the application serial number of said application when known;
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NOW, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assigner might or could have held and enjoyed the same, if this assignment had not been made.

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This combined Declaration and Assignment has been executed by the undersigned on the date opposite the undersigned name.

発明者氏名/ Legal Name of Inventor	Koji HIROSE
発明者の署名/ Signature	日付/ Date ,
Koji Hirose	August 21,2018

Page 8 of 12

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Γ

Attorney Docket No. 002500-ME

COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

Title of Invention:	X
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私は、以下に記名された発明者として、ここに下記 の通り宣言する:	As a below named inventor, I hereby declare that:
本宣言書は、以下の出願に対するものである: 図 添付された出願、あるいは、 □ 米国出願番号またはPCT国際出願番号は、 であり、且つ	This declaration is directed to: The attached application, or United States application or PCT international application number
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上記出願書(明細書及び図面)は、私が作成したもの か、あるいは私がその作成を許可したものである。	The above-identified application was made or authorized to be made by me.
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する原発明者であるか、或いは、原共同発明者であ ると信じている。	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.
	STATEMENT OF ACCURATE TRANSLATION IN ACCORDANCE WITH 37 CFR 1.69(b):
私は、ここでの宣誓または陳述において故意に偽り を述べた場合、合衆国法典第18巻第1001条に基づ き、罰金あるいは5年以下の懲役、または、両方の 懲罰を受けることを認める。	The Declaration and Assignment for Patent and Design Applications is an accurate translation of the corresponding English language Declaration and Assignment for Patent and Design Applications
	Signature: <i>H</i> Date: <u>11/15/2012</u>

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WHEREAS the undersigned, hereinafter referred to as the assignor, has invented a certain improvement relating to the above identified application.

AND WHEREAS MITSUBISHI ELECTRIC CORPORATION of 7-3, Marunouchi 2-chome,

<u>Chivoda-ku</u>, <u>Tokyo 100-8310 JAPAN</u>, hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assigner might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

The undersigned hereby grants the law firm of STUDEBAKER & BRACKETT PC the power to insert on the Assignment portion of this combined Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

This combined Declaration and Assignment has been executed by the undersigned on the date opposite the undersigned name.

発明者氏名/ Legal Name of Inventor	Ken UEDA	
発明者の署名/ Signature	日付/ Date	
Ken Veda	August 28. 2018	

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D6450/US0/



COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

Title of Invention:	
JOINT DRIVING MEMBER FOR ROBOT	
私は、以下に記名された発明者として、ここに下記 の通り宣言する:	As a below named inventor, I hereby declare that:
本宣言書は、以下の出願に対するものである:	This declaration is directed to: The attached application, or United States application or PCT international application number filed on The above-identified application was made or authorized to be made by me.
私は、本米国出願の請求範囲で記載された発明に対	I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
する原発明者であるか、或いは、原共同発明者であ ると信じている。	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. STATEMENT OF ACCURATE TRANSLATION IN
私は、ここでの宣誓または陳述において故意に偽り を述べた場合、合衆国法典第18巻第1001条に基づ き、罰金あるいは5年以下の懲役、または、両方の 懲罰を受けることを認める。	ACCORDANCE WITH 37 CFR 1.69(b): The Declaration and Assignment for Patent and Design Applications is an accurate translation of the corresponding English language Declaration and Assignment for Patent and Design Applications
	Signature: <u>11/15/2012</u> Date: <u>11/15/2012</u>

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WHEREAS the undersigned, hereinafter referred to as the assignor, has invented a certain improvement relating to the above identified application.

The inventor declaration for said application is combined herewith.

AND WHEREAS <u>MITSUBISHI ELECTRIC CORPORATION</u> of <u>7-3</u>, <u>Marunouchi 2-chome</u>, <u>Chiyoda-ku</u>, <u>Tokyo 100-8310 JAPAN</u>, hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assignor, the receipt of which is hereby acknowledged, said assignor hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assigner might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

The undersigned hereby grants the law firm of STUDEBAKER & BRACKETT PC the power to insert on the Assignment portion of this combined Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

This combined Declaration and Assignment has been executed by the undersigned on the date opposite the undersigned name.

発明者氏名/ Legal Name of Inventor	Shingo KIMURA
発明者の署名/ Signature	日付/ Date
Shingo Kimura	August 28,2018

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PATENT REEL: 047008 FRAME: 0484

RECORDED: 09/28/2018