507315967 06/02/2022

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TAKAHIDE YOSHIIKE	05/24/2022
CHRISTOPHER GARRY	05/23/2022
FRANK CHARLES SUP, IV	05/16/2022
SOUMITRA P. SITOLE	05/11/2022
MARK A. PRICE	05/11/2022

RECEIVING PARTY DATA

Name:	HONDA MOTOR CO., LTD.
Street Address:	1-1, MINAMI-AOYAMA 2-CHOME
Internal Address:	MINATO-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	107-8556
Name:	UNIVERSITY OF MASSACHUSETTS
Street Address:	ONE BEACON STREET, 31ST FLOOR
City:	BOSTON
State/Country:	MASSACHUSETTS
Postal Code:	02108

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17830831

CORRESPONDENCE DATA

Fax Number: (216)566-9711

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.

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Email: almasy@rankinhill.com

Correspondent Name: RANKIN HILL AND CLARK LLP

Address Line 1: 38210 GLENN AVENUE
Address Line 4: WILLOUGHBY, OHIO 44094

PATENT REEL: 060089 FRAME: 0680

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ATTORNEY DOCKET NUMBER:	SHG-52695
NAME OF SUBMITTER:	DAVID E. SPAW
SIGNATURE:	/David E. Spaw/
DATE SIGNED:	06/02/2022
Total Attachments: 8	
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ASSIGNMENT

WHEREAS,	new and	useful ir	nprovements	have bee	n made	by the	undersi	gned in
OPERATION	SYSTEM	AND OP	ERATION ME	THOD				

that are the subject of an application for a U.S. Patent, (Application No. 17/830831 , filed <u>June 2, 2022</u>), which application is further identified as Rankin, Hill & Clark LLP Docket No. <u>SHG-52695</u>.

WHEREAS; HONDA MOTOR CO., LTD., a corporation of Japan, and having a place of business at 1-1, Minami-Aoyama 2-chome, Minato-ku, Tokyo, 107-8556 Japan hereinafter referred to as "assignee", is desirous of acquiring all right, title, and interest throughout the world in, to, and under said improvements and inventions and patent rights therefor.

NOW, THEREFORE, be it known that, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, all right, title, and interest, in the United States and throughout the world, in, to and under said improvements and inventions and all patents, patent applications, patent rights, and inventor's certificates thereof, therefor, and therein, including without limitation said application for patent in the United States, all divisions and continuations thereof, all patents which may be granted thereon, all reissues and extensions thereof, all right to sue for past infringement thereunder, all patents which may be granted for said improvements and inventions by states or nations other than the United States, or by other authority, entity, or organization, and all applications therefor, have been and are hereby sold, assigned. transferred, and delivered unto assignee, its successors and assigns; and it is covenanted and agreed by the undersigned, and for executors, administrators, and legal representatives of the undersigned, that at assignee's request any and all applications, affidavits, assignments, and other instruments will be made, executed, and delivered as may be necessary, or desirable to secure for or vest in assignee, its successors or assigns, any improvement, inventions, right, title, interest, application, patent, patent right or other right or property covered by this assignment, and the United States Commissioner of Patents and Trademarks is hereby requested and authorized to issue any and all United States patents granted on any of said applications to assignee as owner of the entire right, title, and interest in, to, and under the same, and appropriately empowered officials of foreign countries are hereby authorized to issue any letters patent granted on any of said applications to assignee as owner of the entire right, title and interest in, to, and under the same.

The undersigned hereby grants the firm of Rankin, Hill & Clark LLP the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, this assignment has been executed below by the undersigned:

1)	Inventor Name (sole or joint): <u>Takahide YOSHIIKE</u>
	Signature: / Takahide Yoshiike /
	Today's Date: May 24, 2022
	Witness:
	Witness:
2)	Inventor Name (joint): Christopher GARRY
	Signature:
	Today's Date:
	Witness:
	Witness:

#12041070501 _bsg-64072

ASSIGNMENT

WHEREAS, new and useful improvements have been made by the undersigned in OPERATION SYSTEM AND OPERATION METHOD

that are the subject of an application for a U.S. Patent, (Application No.17/830831 , filed June 2, 2022), which application is further identified as Rankin, Hill & Clark LLP Docket No. SHG-52695

WHEREAS, HONDA MOTOR CO., LTD., a corporation of Japan, and having a place of business at 1-1. Minami-Aoyama 2-chome, Minato-ku, Tokyo, 107-8556 Japan hereinafter referred to as "assignee", is desirous of acquiring all right, title, and interest throughout the world in, to, and under said improvements and inventions and patent rights therefor.

NOW, THEREFORE, be it known that, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, all right, title, and interest, in the United States and throughout the world, in, to and under said improvements and inventions and all patents, patent applications, patent rights, and inventor's certificates thereof, therefor, and therein, including without limitation said application for patent in the United States, all divisions and continuations thereof, all patents which may be granted thereon, all reissues and extensions thereof, all right to sue for past infringement thereunder, all patents which may be granted for said improvements and inventions by states or nations other than the United States, or by other authority, entity, or organization, and all applications therefor, have been and are hereby sold, assigned, transferred, and delivered unto assignee, its successors and assigns; and it is covenanted and agreed by the undersigned, and for executors, administrators, and legal representatives of the undersigned, that at assignee's request any and all applications, affidavits, assignments, and other instruments will be made, executed, and delivered as may be necessary, or desirable to secure for or vest in assignee, its successors or assigns, any improvement, inventions, right, title, interest, application, patent, patent right or other right or property covered by this assignment, and the United States Commissioner of Patents and Trademarks is hereby requested and authorized to issue any and all United States patents granted on any of said applications to assignee as owner of the entire right, title, and interest in, to, and under the same, and appropriately empowered officials of foreign countries are hereby authorized to issue any letters patent granted on any of said applications to assignee as owner of the entire right, title and interest in, to, and under the same.

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Page 1

IN WITNESS WHEREOF, this assignment has been executed below by the undersigned:

Inventor Name (sole o	or joint): <u>Takahide YOSHIIKE</u>
Signature:	
Today's Date:	······································
Witness:	······································
Witness:	
Inventor Name (joint):	
Signature: A Soy	
	05/23/2022

ASSIGNMENT

WHEREAS, new and useful improvements have been made by the undersigned in OPERATION SYSTEM AND OPERATION METHOD

that are the subject of an application for a U.S. Patent, (Application No.17/830831 , filed June 2, 2022), which application is further identified as Rankin, Hill & Clark LLP Docket No. SHG-52695 .

WHEREAS, University of Massachusetts, an organization of the U.S., and having a mailing address of One Beacon Street, 31st Floor Boston, MA 02108 U.S.A, hereinafter referred to as "assignee", is desirous of acquiring all right, title, and interest throughout the world in, to, and under said improvements and inventions and patent rights therefor.

NOW, THEREFORE, be it known that, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, all right, title, and interest, in the United States and throughout the world, in, to and under said improvements and inventions and all patents, patent applications, patent rights, and inventor's certificates thereof, therefor, and therein, including without limitation said application for patent in the United States, all divisions and continuations thereof, all patents which may be granted thereon, all reissues and extensions thereof, all right to sue for past infringement thereunder, all patents which may be granted for said improvements and inventions by states or nations other than the United States, or by other authority, entity, or organization, and all applications therefor, have been and are hereby sold, assigned. transferred, and delivered unto assignee, its successors and assigns; and it is covenanted and agreed by the undersigned, and for executors, administrators, and legal representatives of the undersigned, that at assignee's request any and all applications, affidavits, assignments, and other instruments will be made, executed, and delivered as may be necessary, or desirable to secure for or vest in assignee, its successors or assigns, any improvement, inventions, right, title, interest, application, patent, patent right or other right or property covered by this assignment, and the United States Commissioner of Patents and Trademarks is hereby requested and authorized to issue any and all United States patents granted on any of said applications to assignee as owner of the entire right, title, and interest in, to, and under the same, and appropriately empowered officials of foreign countries are hereby authorized to issue any letters patent granted on any of said applications to assignee as owner of the entire right, title and interest in, to, and under the same.

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		H12041Q7USUI 05Q-0407Z
	IN WI	TNESS WHEREOF, this assignment has been executed below by the
		signed:
	(1)	Inventor Name (sole or joint): Frank Charles SUP, IV
100		Signature: Jul Chule & IZ
		Today's Date: / 5-16-202
		Witness Richard Bare
		Witness: Serrhy Lee
	(2)	Inventor Name (joint): Soumitra P. SITOLE
	(4-)	Signature:
		Today's Date:
		Witness:
		Witness:
	(3)	Inventor Name (joint): <u>Mark A. PRICE</u>
		Signature:
		Today's Date:
		Witness:
		Witness:
		Page 2

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IN WITNESS W-IEREOF, this assignment has been executed below by the undersigned: (1) Inventor Name (sole or joint): Erank Charles SUP IV Signature: Today's Date: Witness: W
Undersigned: (1) Inventor Name (sole or joint): Frank Charles SUP IV Signature: Today's Date: Witness: Witness: (2) Inventor Name (joint): Soumitra P. SITOLE Signature Folday's Date: Moy 11' 2022 Witness: Witness: Power Bry 10 2022 Witness: Witness: Witness: Power Bry 10 2011 (3) Inventor Name (joint): Mark A. PRICE
Undersigned: (1) Inventor Name (sole or joint): Frank Charles SUP IV Signature: Today's Date: Witness: Witness: (2) Inventor Name (joint): Soumitra P. SITOLE Signature Folday's Date: Moy 11' 2022 Witness: Witness: Power Bry 10 2022 Witness: Witness: Witness: Power Bry 10 2011 (3) Inventor Name (joint): Mark A. PRICE
Today's Date: Witness: Witness: (2) Inventor Name (joint): Soumitra P. SITOLE Signature: Today's Date: MOU 11, 2022. Witness:
Today's Date: Witness: Witness: (2) Inventor Name (joint): Soumitra P. SITOLE Signature: Today's Date: MOU 11, 2022. Witness:
Witness: Witness: (2) Inventor Name (joint): Soumitra P. SITOLE Signature Today's Date: Moy 11 2022 Witness:
(2) Inventor Name (joint) Soumitra P. SITOLE Signature Ford Today's Date: MOU 11' 2022 Witness: Witness: Witness: 2 Mark A. PRICE
Witness: Witness: 2 (a) Inventor Name (joint): Mark A. PRICE
Witness: Witness: 2 (a) Inventor Name (joint): Mark A. PRICE
Witness: Witness: 2 (a) Inventor Name (joint): Mark A. PRICE
(3) Inventor Name (joint): Mark A. PRICE
Signature: 7 Today's Date: May 1, 2022. Witness: Witness
Witness: Wit
Witness WWW bits Employed

PATENT REEL: 060089 FRAME: 0689

RECORDED: 06/02/2022