PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4763142

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
REDWOOD ROBOTICS LLC	10/26/2017

RECEIVING PARTY DATA

Name:	GOOGLE LLC
Street Address:	1600 AMPHITHEATRE PARKWAY
City:	MOUNTAIN VIEW
State/Country:	CALIFORNIA
Postal Code:	94043

PROPERTY NUMBERS Total: 42

Property Type	Number
Application Number:	61718645
Application Number:	14061668
Application Number:	61718648
Application Number:	61718650
Application Number:	61718653
Application Number:	61718654
Application Number:	61718655
Application Number:	61719871
Application Number:	14061669
Application Number:	61766398
Application Number:	61813786
Application Number:	14197536
Application Number:	15243034
Application Number:	61815146
Application Number:	14246205
Application Number:	61838698
Application Number:	14191831
PCT Number:	US2014043642
Application Number:	15134963
Application Number:	61838700

PATENT REEL: 044547 FRAME: 0557

504716420

Property Type	Number
Application Number:	14308800
Application Number:	15591286
Application Number:	61838703
Application Number:	14313018
Application Number:	61838707
Application Number:	14311799
Application Number:	15242754
Application Number:	61838712
Application Number:	14311810
Application Number:	15372126
Application Number:	61838715
Application Number:	14309981
Application Number:	61838718
Application Number:	14312877
Application Number:	14878329
Application Number:	61838720
Application Number:	14312905
Application Number:	61838733
Application Number:	14309994
Application Number:	61838735
Application Number:	14191819
Application Number:	15341475

CORRESPONDENCE DATA

Fax Number: (312)913-0002

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: 312-913-0001

Email: mueller@mbhb.com

Correspondent Name: MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP

Address Line 1: 300 SOUTH WACKER DRIVE Address Line 4: CHICAGO, ILLINOIS 60606

ATTORNEY DOCKET NUMBER:	REDWOOD
NAME OF SUBMITTER:	JOSEPH A. HERNDON
SIGNATURE:	/Joseph A. Herndon/
DATE SIGNED:	01/05/2018

Total Attachments: 7

source=RedwoodToGoogle - Revised#page1.tif source=RedwoodToGoogle - Revised#page2.tif



ASSIGNMENT

WHEREAS, Redwood Robotics LLC, a corporation organized under the laws of the State of Delaware, having a place of business at 255 Potrero Hill San Francisco, CA 94110 ("ASSIGNOR"), is the owner of the entire right, title and interest in and to the patents and/or patent applications listed in the attached Schedule A ("PATENTS AND PATENT APPLICATIONS").

WHEREAS, GOOGLE LLC, a limited liability company organized under the laws of the State of Delaware, having a place of business at 1600 Amphitheatre Parkway, Mountain View, CA 94043 ("ASSIGNEE"), desires to obtain the entire right, title and interest in and to the PATENTS AND PATENT APPLICATIONS.

NOW, THEREFORE, in consideration of the good and valuable consideration received by ASSIGNOR from ASSIGNEE, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR hereby assigns and transfers to ASSIGNEE the entire right, title and interest in and to the PATENTS AND PATENT APPLICATIONS, and all rights of enforcement thereto, including all rights to sue or recover for the past infringement thereof, and further including the right to file and prosecute in its own name, wherever so permitted by law, patent applications, including corresponding applications, based on any of the PATENTS AND PATENT APPLICATIONS, and to claim priority to any of the PATENTS AND PATENT APPLICATIONS pursuant to the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes. ASSIGNEE may apply for and receive patents in its own name wherever so permitted by law and ASSIGNOR shall, when requested by ASSIGNEE, execute or cause to be executed all rightful oaths, assignments, and powers of attorney to ASSIGNEE or to agents and legal representatives of ASSIGNEE, and all other papers necessary and proper to carry out the intent and purpose of this Assignment, and ASSIGNOR further agrees:

a. to execute all papers necessary in connection with the PATENTS AND PATENT APPLICATIONS, and any continuing, divisional, reissue, reexamination or other corresponding application thereof and to execute any separate Assignment in connection with such application as ASSIGNEE may deem necessary or expedient; and

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to perform all affirmative acts which may be necessary to obtain a grant of a valid patent to ASSIGNEE on any of the PATENTS AND PATENT APPLICATIONS and on any continuation, division, reissue or reexamination of any of the PATENTS AND PATENT APPLICATIONS.

ASSIGNOR retains no ownership rights in the patent applications, the patents, the

inventions, and the rights transferred to AS	SIGNEE hereunder.
IN WITNESS WHEREOF, ASSIGN duly authorized representative on this 1/2 &	NOR has caused this Assignment to be executed by its day of
	REDWOOD ROBOTICS LLC By: Replicant LLC, its managing member By: Google Inc., its managing member
	By: Kenneth Yi
	Title: Assistant Secretary
	Date: October 76, 7017
State of California	
County of	
On, before me per	sonally appeared
who proved to me on the basis of satisfactor	y evidence to be the person whose name is
subscribed to the within instrument and ack	nowledged to me that he/she executed the same in
his/her authorized capacity, and that by his/l	her signature on the instrument the person, or the
entity upon behalf of which the person acted	I, executed the instrument.
I certify under PENALTY OF PER	JURY under the laws of the State of California that
the foregoing paragraph is true and correct.	
WITNESS my hand and official seal	*
(Seal)	
	Notary Public

Page 2 of AS

ASSIGNEE hereby accepts receipt of the entire right, title and interest in and to the PATENTS AND PATENT APPLICATIONS.

	DOGLE LLC	
	:	All manufactures.
	Title: Assistant Se	cretary
	te: <u>((1004/</u>	27, 2017
State of California County of		
On, before me perso	ılly appeared	
who proved to me on the basis of satisfactory	idence to be the person	whose name is
subscribed to the within instrument and acknowledge	ledged to me that he/sh	e executed the same in
his/her authorized capacity, and that by his/he	ignature on the instrum	ent the person, or the
entity upon behalf of which the person acted,	ecuted the instrument.	701
I certify under PENALTY OF PERJ	Y under the laws of th	e State of California that
the foregoing paragraph is true and correct.		
WITNESS my hand and official seal.		
(Seal)		
- 1	tary Public	· .
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Page 3 of 4(5)

SCHEDULE A

Reference No.	Jurisdiction	Application Number	Filing Date	Issue Date	Patent Number
13-1306-PRO	US	61/718,645	10/25/12	+	. +
13-1306-US	US	14/061,668	10/23/13	2/21/17	9,574,646
13-1307-PRO	US	61/718,648	10/25/12		- 7-
13-1308-PRO	US	61/718,650	10/25/12	.~	~
13-1309-PRO	US	61/718,653	10/25/12	<u>ط</u>	
13-1310-PRO	US	61/718,654	10/25/12	-	
13-1311-PRO	US	61/718,655	10/25/12	(=)	
13-1312-PRO	US	61/719,871	10/29/12	7.	~
13-1312-US	US	14/061,669	10/23/13		~
13-1321-PRO	US	61/766,398	2/19/13	~	
13-1322-PRO	US	61/813,786	4/19/13		4
13-1322	US	14/197,536	3/5/14	9/20/16	9,447,849
13-1322-US-DIV	US	15/243,034	8/22/16	-	_
13-1323-PRO	US	61/815,146	4/23/13		-
13-1323-US	US	14/246,205	4/7/14	11/29/16	9,509,195
13-1324-PRO	US	61/838,698	6/24/13	-	-
13-1324	US	14/191,831	2/27/14	5/24/16	9,346,160
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13-1324-WO	WO	3642	6/23/14	· -	,
13-1324-WO-CN	CN	201480034370.5	6/23/14		~
13-1324-WO-EP	EP	14742400.6	6/23/14	<u>-</u>	~
13-1324-WO-JP	JР	2016-521886	6/23/14	- '	
13-1324-WO-KR	KR	10-2015-7036316	6/23/14		
13-1324-US-CON	US	15/134,963	4/21/16	-	***************************************
13-1325-PRO	US	61/838,700	6/24/13	<u>-</u>	-
13-1325	US	14/308,800	6/19/14		
13-1325-CON	US	15/591,286	5/10/17	~	
13-1326-PRO	US	61/838,703	6/24/13	~	.=
13-1326-US	US	14/313,018	6/24/14	11/29/16	9,505,136
13-1327-PRO	US	61/838,707	6/24/13	*:	
13-1327	US	14/311,799	6/23/14	10/11/16	9,465,384
13-1327-CON	US	15/242,754	8/22/16	·	_
13-1328-PRO	US	61/838,712	6/24/13		
13-1328	US	14/311,810	6/23/14	2/7/17	9,561,590
13-1328-CON	US	15/372,126	12/7/16	~	
13-1329-PRO	US	61/838,715	6/24/13	79,	
13-1329	US	14/309,981	6/20/14	12/8/15	9,205,560
13-1330-PRO	US	61/838,718	6/24/13		<u> </u>
13-1330	US	14/312,877	6/24/14	11/17/15	9,186,795
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Page 4 of 46

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13-1332-PRO	US	61/838,733	6/24/13	-	
13-1332	US	14/309,994	6/20/14	12/8/15	9,205,556
13-1333-PRO	US	61/838,735	6/24/13		×
13-1333	US	14/191,819	2/27/14	.u.	
13-1333-US-DIV	US	15/341,475	11/2/16	-	.~.

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

validity of that document.	
State of California County of Santa Clara)
On October 26, 2017 before me,	Celeste Danielle Fuller, Notary Public (insert name and title of the officer)
subscribed to the within instrument and acknow his/her/their authorized capacity(jes), and that b person(s), or the entity upon behalf of which the	vidence to be the person(s) whose name(s) is/are ledged to me that he/she/they executed the same in by his/he/their signature(s) on the instrument the person(s) acted, executed the instrument. The laws of the State of California that the foregoing
WITNESS my hand and official seal. Signature	CELESTE DANIELLE PUBLICE COMMUNICATION COMMUNICATION COMMUNICATION COMMUNICATION COMMUNICATION TO COMMUNICAT

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate vo to which this certificate is attached, and not the truthfulne	erifies only the Identity of the individual who signed the documen ss, accuracy, or validity of that document.		
State of California			
County of Santa Clara			
On <u>0 (1006/ 27 Jol 7</u> before me,	Candace Chow, Notary Public		
Date	Here Insert Name and Title of the Officer		
personally appeared	<u>Chan</u>		
	Name(s) of Signer(s)		
o the within instrument and acknowledged to me th	nature(s) on the instrument the person(s), or the entity		
CANDACE CHOW Notary Public - California Santa Clara County Commission # 2107100	I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.		
Commission # 2187100 S My Comm. Expires Apr 15, 2021	WITNESS my hand and official seal.		
	Signature		
Place Notary Seal and/or Stamp Above	Signature of Notary Public		
OPT	IONAL -		
	deter alteration of the document or form to an unintended document.		
Description of Attached Document			
Title or Type of Document:			
Document Date; Number of Pages; Number of Pages			
Signer(s) Other Than Named Above:			
Capacity(ies) Claimed by Signer(s)			
Signer's Name;	Signer's Name:		
□ Corporate Officer – Title(s):	☐ Corporate Officer – Title(s):		
☐ Partner - ☐ Limited ☐ General	☐ Partner — ☐ Limited ☐ General		
☐ Individual ☐ Attorney in Fact ☐ Trustee ☐ Guardian of Conservator	☐ Individual ☐ Atterney in Fact		
- Out	☐ Trustee ☐ Guardian of Conservator		
Signer is Representing:	Other:		
olduer is kebtesenting:	Signer is Representing:		

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PATENT REEL: 044547 FRAME: 0566

RECORDED: 01/05/2018