PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ALEXANDER FRANCISCUS KOLEN	07/01/2019
HARM JAN WILLEM BELT	12/02/2018
GODEFRIDUS ANTONIUS HARKS	12/03/2018
GEERT GERARDUS HANRICUS MARIA GIJSBERS	11/07/2018
HONG LIU	11/28/2018

RECEIVING PARTY DATA

Name:	KONINKLIJKE PHILIPS N.V.
Street Address:	HIGH TECH CAMPUS 52
City:	EINDHOVEN
State/Country:	NETHERLANDS
Postal Code:	5656 AG

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16646714

CORRESPONDENCE DATA

Fax Number: (914)495-9540

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: 914-495-9516

Email: jacqueline.andreu@philips.com

Correspondent Name: PHILIPS INTELLECTUAL PROPERTY & STANDARD

Address Line 1: 465 COLUMBUS AVENUE

Address Line 2: SUITE 340

Address Line 4: VALHALLA, NEW YORK 10595

Total Attachments, 5	
DATE SIGNED:	03/12/2020
SIGNATURE:	/Catherine E. Feldman/
NAME OF SUBMITTER:	CATHERINE E. FELDMAN
ATTORNEY DOCKET NUMBER:	2017P02079WOUS

Total Attachments: 5

PATENT REEL: 052097 FRAME: 0262

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> PATENT REEL: 052097 FRAME: 0263

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s) or Inventor,
hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke Philips N.V.
having a place of business at High Tech Campus 5, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:
representatives, including any nonlinees (collectively) the Assignee / my/out invention which an application.
is executed concurrently herewith

and all rights in and to said application, and all other United States, foreign and international patent applications associated therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, non-provisionals divisions, continuations, continuations-in-part, re-examinations, reissues, and extensions thereof, and the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granted on these applications.

I/We authorize and request that the Patent Office officials in the United States and in any and all foreign countries to issue any and all Letters Patent when granted, solely to the Assignee(s), for its sole use, and that of its successors, assigns, and legal representatives.

I/We will provide my/our cooperation to enable the Assignee to enjoy the foregoing right, title, and interest to the fullest extent. Upon request at the expense of the Assignee, I/we agree to execute all papers, take all rightful oaths, testify in all legal proceedings including patent prosecution actions and infringement actions, and do all other such acts which may be necessary, desirable, or convenient for securing and maintaining patents on the foregoing invention or for perfecting title thereto in the Assignee.

I/We certify that I/we have the full right to convey the above rights.

was filed on ***, having a United States Application No. ***

was filed on 2018-Sep-10, having an International Application No. PCT/EP2018/074344,

As a below-named Inventor, I hereby declare that the above-identified application was made or authorized to be made by meg and that I am the original Inventor or an original joint Inventor of a claimed invention in the application.

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.

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Date:	01/0//20 0	Signature:	- L	Assignor/Inventor
			Alexander Franciscus KOLEN	
Date:		Signature:	<u></u>	Assignor/Inventor
			Harm Jan Willem BELT	
Date:		Signature:		Assignor/Inventor
		₩	Godefridus Antonius HARKS	•
Date:		Signature:		Assignor/Inventor
2 10307			Geert Gerardus Hanricus Maria GIJSBERS	
Date:		Signature:		Assignor/Inventor
w water		and the second second	Hong LIU	

PATENT REEL: 052097 FRAME: 0264 For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s) or Inventor, hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke Philips N.V., having a place of business at High Tech Campus 5, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:

	is executed concurrently herewith
	was filed on ***, having a United States Application No. ***
88	was filed on 2018-Sep-10, having an International Application No. PCT/EP2018/074344

and all rights in and to said application, and all other United States, foreign and international patent applications associated therewith, based thereon, or claiming priority therefrom including, but not limited to, any and all provisionals, non-provisionals divisions, continuations, continuations-in-part, reexaminations, reissues, and extensions thereof, and the right to claim priority thereto, and the entire and exclusive right, title, and interest in and to any and all patents granted on these applications.

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Date:	Signature:		Assignor/Inventor
Date:	Signature:	Alexander Franciscus KOLEN	Assignor/Inventor
Date: 12-2-2018	Signature:	Harm Jan Willem BELT	Assignor/Inventor
Date:	Signature:	Godefridus Antonius HARKS	Assignor/Inventor
Date:	Signature:	Geert Gerardus Hanricus Maria GUSBERS	Assignor/Inventor
		Hong LIU	

PATENT REEL: 052097 FRAME: 0265 For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s) or Inventor,

having a place of business at Hi	gh Tech Cami	e and exclusive right, title, and interest in the following ous 5, 5656 AE, Eindhoven, the Netherlands, its su ectively "the Assignee") my/our invention for which a	ccessors, assigns, and legal
is executed concurrently her	ewith		
was filed on ***, having a Ur	nited States Ap	oplication No. ***	
was filed on 2018-Sep-10, h	aving an Inter	national Application No. PCT/EP2018/074344,	
therewith, based thereon, or claidivisions, continuations, continu	iming priority to ations-in-part,	i other United States, foreign and international pate herefrom including, but not limited to, any and all pr re-examinations, reissues, and extensions thereof, r, and interest in and to any and all patents granted	ovisionals, non-provisionals and the right to claim priority
I/We authorize and request that and all Letters Patent when grar representatives.	the Patent Off nted, solely to	fice officials in the United States and in any and all the Assignee(s), for its sole use, and that of its suc	foreign countries to issue any cessors, assigns, and legal
Upon request at the expense of proceedings including patent pro	the Assignee, osecution action	the Assignee to enjoy the foregoing right, title, and law agree to execute all papers, take all rightful or one and infringement actions, and do all other suching and maintaining patents on the foregoing inventing.	aths, testify in all legal acts which may be
I/We certify that I/we have the fu	ıll right to conv	rey the above rights.	
		that the above-identified application was made or a al joint Inventor of a claimed invention in the applica	
I hereby acknowledge that any imprisonment of not more than t		tement made in this declaration is punishable unde or both.	r 18 U.S.C. 1001 by fine or
Date:	Signature:		Assignor/inventor
Date:	Signature:	Alexander Franciscus KOLEN	Assignor/inventor
2 Danasah as 2010		Harm Jan Willem BELT	
Date: 3 December 2018	Signature:	/Godefridus Antonius Harks/	Assignpr/Inventor
Date: 3 DEC 2019	Signature:	Godefridus Antonius (1997)	Assignor/inventor
Bata	O (maranta can	Geert Gerardus Hanvicus Maria GIJSBERS	4
Date:	Signature:	Hong LIU	Assignor/inventor

Date:

Signature:

Hong LIU

hereby sell, and assign, and trar having a place of business at Hi	nsfer the entire gh Tech Camp	I/we acknowledge receipt, I/we as a below-named As and exclusive right, title, and interest in the following bus 5, 5656 AE, Eindhoven, the Netherlands, its succeptively "the Assignee") my/our invention for which an	to Koninklijke Philips N.V., essors, assigns, and legal
is executed concurrently her	rewith		
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was filed on 2018-Sep-10, h	aving an Inter	national Application No. PCT/EP2018/074344,	
therewith, based thereon, or claid divisions, continuations, conti	iming priority thations-in-part,	other United States, foreign and international patent herefrom including, but not limited to, any and all prov re-examinations, reissues, and extensions thereof, ar , and interest in and to any and all patents granted or	visionals, non-provisionals and the right to claim priority
•		ice officials in the United States and in any and all for the Assignee(s), for its sole use, and that of its succe	
Upon request at the expense of proceedings including patent pro	the Assignee, osecution actic	the Assignee to enjoy the foregoing right, title, and in I/we agree to execute all papers, take all rightful oath ons and infringement actions, and do all other such actions and maintaining patents on the foregoing invention	is, testify in all legal its which may be
I/We certify that I/we have the fu	ıll right to conv	ey the above rights.	
	•	that the above-identified application was made or authal joint Inventor of a claimed invention in the application	•
I hereby acknowledge that any vimprisonment of not more than I		tement made in this declaration is punishable under 1 or both.	8 U.S.C; 1001 by fine or
Date:	Signature	::::::::::::::::::::::::::::::::::::::	Assignor/Inventor
Date:	Signature:	Alexander Franciscus KOLEN	Assignor/Inventor
Date:	Signature:	Harm Jas. Willem BELT	Assignor/Inventor
Date: <u>1/1/27-27-2018</u>	Signature:	Gedefridus Antonius WARKS George Carry Edus Hantricus Maria GLISBERS	Assignor/Inventor

PATENT REEL: 052097 FRAME: 0267

Assignor/Inventor

ASSIGNMENT & DECLARATION

Docket No. 2017P02079WOUS

For good and valuable consideration, of which I/we acknowledge receipt, I/we as a below-named Assignor(s) or Inventor, hereby sell, and assign, and transfer the entire and exclusive right, title, and interest in the following to Koninklijke Philips N.V., having a place of business at High Tech Campus 5, 5656 AE, Eindhoven, the Netherlands, its successors, assigns, and legal representatives, including any nominees (collectively "the Assignee") my/our invention for which an application:

is executed concurrently here	niiw
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Date:	Signature:		Assignor/Inventor
Date:	Signature:	Alexander Franciscus KOLEN	Assignor/inventor
Date:	Signature: Signature:	Harm Jan Willem BELT	Assignor/inventor
Date:		Godefridus Antonius HARKS	Assignor/Inventor
Date: 20/8-11-28	Signature:	Geeri Gerardus Hanricus Maria GIJSBERS/Hong Liu/	Assignor/Inventor

PATENT REEL: 052097 FRAME: 0268

RECORDED: 03/12/2020