PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
James Rowland SUCKLING	07/20/2013
David James MONTGOMERY	07/17/2013
Sarah Anne MITCHELL	07/17/2013
Koji TAKAHASHI	07/17/2013

RECEIVING PARTY DATA

Name:	SHARP KABUSHIKI KAISHA	
Street Address:	2-22, Nagaike-cho, Abeno-ku, Osaka-shi	
City:	Osaka	
State/Country:	JAPAN	
Postal Code:	545-8522	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13948724

CORRESPONDENCE DATA

Fax Number: 2166216165

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 2166211113

Email: carndt@rennerotto.com

Correspondent Name: Mark D Saralino

Address Line 1: Renner, Otto, Boisselle & Sklar, LLP
Address Line 2: 1621 Euclid Avenue, Nineteenth Floor

Address Line 4: Cleveland, OHIO 44115

ATTORNEY DOCKET NUMBER:	HARAP0358US
NAME OF SUBMITTER:	Mark D. Saralino
Signature:	/Mark D.Saralino/

502497516 REEL: 031217 FRAME: 0909

139/872/

Date:	09/17/2013			
	This document serves as an Oath/Declaration (37 CFR 1.63).			
Total Attachments: 9 source=Declaration-Assignment-executed#page1.tif source=Declaration-Assignment-executed#page2.tif source=Declaration-Assignment-executed#page3.tif source=Declaration-Assignment-executed#page4.tif source=Declaration-Assignment-executed#page5.tif				
source=Declaration-Assignment-executed#page6.tif				
source=Declaration-Assignment-executed#page7.tif				
source=Declaration-Assignment-executed#page8.tif source=Declaration-Assignment-executed#page9.tif				

PATENT REEL: 031217 FRAME: 0910

COM	BINED DECLAR	ATION AND ASSIGNMENT U (ORIGINAL, DESIGN, NATI			CFR 1.76)
	•		,		
Title:	Headlight Syst	em Incorporating Adaptive Bea	m Function		
		I. DECLAF	RATION		
As a bel	ow named invent	or or joint inventor, I hereby de	clare that:		
This dec	laration is directe	ed to:			
(a)	_ the attached a	application, or			
(b) X	United States filed on23	application or PCT internations 3 July 2013	al application number _	13/948,724	
The abo	ve-identified app	lication was made or authorized	d by me.		
I believe	that I am the orig	ginal inventor or an original join	t inventor of a claimed i	nvention in the a	oplication.
l hereby	state that I have	reviewed and understand the o	contents of the above-id	lentified application	on.
I hereby me to be	acknowledge the material to pate	e duty to disclose to the U.S. Pantability as defined in 37 C.F.R	atent and Trademark O . §1.56.	ffice all informatio	on known to
I hereby 1001 by	acknowledge that	at any willful false statement m nent of not more than five (5) ye	ade in this declaration ears, or both.	is punishable und	der 18 USC
		PRIORITY	CLAIM		
for pater other that for pater other that	nt or inventor's control of the United State of inventor's control of the United State	ority benefits under Title 35, Un ertificate or of any PCT internations of America listed below and ertificate or any PCT internations of America filed by me on the nich priority is claimed.	tional application(s) des have also identified belional application(s) design	ignating at least ow any foreign ar gnating at least (one country oplication(s) one country
(c)	_ no such applic	cation have been filed.			
(d) <u>X</u>	_ such applicati	ons have been filed as follows.			
		FOREIGN APPLICATION(S), ONTHS FOR DESIGN) PRIOF			
റ	OUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY (UNDER 35	
	ed Kingdom	1213299.9	26.07.2012	X Yes	No
				Yes	No.
				Yes	No

II. ASSIGNMENT

As a below named assignor, for good and valuable consideration acknowledged and received I hereby sell and assign my entire worldwide right, title and interest in the application and the invention(s), so far as concerns the United States and the Territories and Possessions thereof to:

ASSIGNEE:

SHARP KABUSHIKI KAISHA 22-22, Nagaike-cho Abeno-ku, Osaka-shi Osaka, Japan 545-8522

Including:

any and all related patent application(s) in the United States, including continuations, continuations-in-part, divisionals, conversions, renewals, substitutes, reissues, reexaminations, extensions, non-provisional applications, and other applications based in whole or in part upon the invention(s) or upon the application(s);

any and all Letters Patent, renewals, reissues, reexamination certificates and extensions of Letters Patent granted for the invention(s) or upon the application(s); and

every priority right that is or may be predicated upon or arise from the invention(s), the application(s) and the Letters Patent.

I additionally authorize the Assignee to file patent applications in my or the Assignee's name for Letters Patent in any country (by international convention, treaty or otherwise), to be held and enjoyed by the Assignee, its successors and assigns, to the full end of the term or terms for which Letters Patent respectively may be granted, reissued, reexamined or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this Assignment and transfer not been made.

I hereby covenant that I have the full right to convey the entire interests herein assigned, and that I have not executed and will not execute any agreement in conflict herewith and that such assigned rights are not encumbered by any grant, license or other right previously given.

I agree that each time a request is made, and without undue delay, I will execute and deliver all such papers as may be necessary or desirable to perfect the title in and to the invention(s), the application(s) and the Letters Patent, to the Assignee, its successors or assigns.

I agree, without undue delay, to undertake all reasonable acts to assure that said invention(s), patent application(s) and Letters Patent shall be held and enjoyed by the Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly: to execute and deliver to the Assignee all lawful documents including petitions, specifications, oaths, declarations, powers of attorney, assignments, invention disclaimers and lawful affidavits in form and substance which may be requested by the Assignee; to furnish the Assignee with all facts relating to said invention(s) or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be useful for establishing the facts of conception, disclosure and reduction to practice of said invention(s); and to testify in any proceedings relating to said invention(s), patent application(s) and Letters Patent.

I authorize the patent attorney of record and/or having power of attorney in the U.S. patent application identified above to insert the serial number and filing date information for the patent application in the appropriate spaces in this document when that information becomes available.

Full Name of Sole or	First Inventor and Assignor:	James Rowland	SUCKLING
Inventor's signature:	Same Tanhly	Date:	20/07/2013
Post Office Address:	c/o SHARP LABORATORIES OF E Edmund Halley Road, Oxford Scien		
Full Name of Second	Inventor and Assignor:	David James MC	ONTGOMERY
Inventor's signature:		Date:	
Post Office Address:	c/o SHARP LABORATORIES OF E	•	
	Edmund Halley Road, Oxford Scien	ce Park, Oxford, O	X4 4GB, United Kingdom
Full Name of Third I	nventor and Assignor:	Sarah Anne MIT	CHELL
Inventor's signature:		Date:	
Post Office Address:	c/o SHARP LABORATORIES OF E	UROPE, LTD.	
	Edmund Halley Road, Oxford Scien	ce Park, Oxford, O	X4 4GB, United Kingdom
Full Name of Fourth	Inventor and Assignor:	Koji TAKAHASH	
Inventor's signature:		Date:	
Post Office Address:	c/o Sharp Kabushiki Kaisha, 22-22, 545-8522 Japan	Nagaike-cho, Abei	no-ku, Osaka-shi, Osaka
FORM	ECK FOR ANY OF THE FOLLOWING A PART OF THIS COMBINED DECL	ARATION AND AS	SSIGNMENT
			-
Added page to continuation-in-	his combined declaration and assignroart (CIP) application.	ment for divisional,	continuation, or
X This combined de	claration and assignment ends with the	his page.	

3

COM	BINED DECLARA	TION AND ASSIGNMENT U (ORIGINAL, DESIGN, NAT		TA SHEET (37 CFR 1.76)
Title:	Headlight Syste	m Incorporating Adaptive Bea	m Function	
		I. DECLAF	RATION	
As a bel	ow named invento	r or joint inventor, I hereby de	eclare that:	
This dec	claration is directed	f to:		
(a)	the attached ap	pplication, or		
(b) X	United States a filed on23	pplication or PCT international July 2013	al application number	13/948,724
The abo	ve-identified applic	cation was made or authorize	d by me.	
I believe	that I am the orig	nal inventor or an original joir	nt inventor of a claimed in	vention in the application.
I hereby	state that I have r	eviewed and understand the	contents of the above-ide	ntified application.
I hereby me to be	acknowledge the material to paten	duty to disclose to the U.S. P tability as defined in 37 C.F.R	atent and Trademark Offi . §1.56.	ce all information known to
l hereby 1001 by	acknowledge that fine or imprisonme	t any willful false statement m ent of not more than five (5) y	nade in this declaration is ears, or both.	punishable under 18 USC
		PRIORITY	CLAIM	
for pater other that for pater other that	nt or inventor's ce an the United State nt or inventor's ce an the United State	ity benefits under Title 35, Un rtificate or of any PCT Interna is of America listed below and rtificate or any PCT internation is of America filed by me on the och priority is claimed.	tional application(s) desig I have also identified belov onal application(s) desigr	nating at least one country wany foreign application(s) nating at least one country
(c)	_ no such applica	ation have been filed.	•	
(d) <u>X</u>	such applicatio	ns have been filed as follows.		
		FOREIGN APPLICATION(S). DNTHS FOR DESIGN) PRIOR		
С	OUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC §119
Unit	ed Kingdom	1213299.9	26.07.2012	X Yes No
				Yes No

II. ASSIGNMENT

As a below named assignor, for good and valuable consideration acknowledged and received I hereby sell and assign my entire worldwide right, title and interest in the application and the invention(s), so far as concerns the United States and the Territories and Possessions thereof to:

ASSIGNEE:

SHARP KABUSHIKI KAISHA 22-22, Nagaike-cho Abeno-ku, Osaka-shi Osaka, Japan 545-8522

Including:

any and all related patent application(s) in the United States, including continuations, continuations-in-part, divisionals, conversions, renewals, substitutes, reissues, reexaminations, extensions, non-provisional applications, and other applications based in whole or in part upon the invention(s) or upon the application(s);

any and all Letters Patent, renewals, reissues, reexamination certificates and extensions of Letters Patent granted for the invention(s) or upon the application(s); and

every priority right that is or may be predicated upon or arise from the invention(s), the application(s) and the Letters Patent.

I additionally authorize the Assignee to file patent applications in my or the Assignee's name for Letters Patent in any country (by international convention, treaty or otherwise), to be held and enjoyed by the Assignee, its successors and assigns, to the full end of the term or terms for which Letters Patent respectively may be granted, reissued, reexamined or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this Assignment and transfer not been made.

I hereby covenant that I have the full right to convey the entire interests herein assigned, and that I have not executed and will not execute any agreement in conflict herewith and that such assigned rights are not encumbered by any grant, license or other right previously given.

I agree that each time a request is made, and without undue delay, I will execute and deliver all such papers as may be necessary or desirable to perfect the title in and to the invention(s), the application(s) and the Letters Patent, to the Assignee, its successors or assigns.

I agree, without undue delay, to undertake all reasonable acts to assure that said invention(s), patent application(s) and Letters Patent shall be held and enjoyed by the Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly: to execute and deliver to the Assignee all lawful documents including petitions, specifications, oaths, declarations, powers of attorney, assignments, invention disclaimers and lawful affidavits in form and substance which may be requested by the Assignee; to furnish the Assignee with all facts relating to said invention(s) or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be useful for establishing the facts of conception, disclosure and reduction to practice of said invention(s); and to testify in any proceedings relating to said invention(s), patent application(s) and Letters Patent.

I authorize the patent attorney of record and/or having power of attorney in the U.S. patent application identified above to insert the serial number and filing date information for the patent application in the appropriate spaces in this document when that information becomes available.

				PAILIN (O
Full Name of Sole or	First Inventor and Assignor:	James	Rowland	SUCKLING
Inventor's signature:			Date:	·
Post Office Address:	c/o SHARP LABORATORIES OF	EUROPE,	LTD.	
·	Edmund Halley Road, Oxford Sci	ience Park,	Oxford, O	X4 4GB, United Kingdom
	•		******	190
Full Name of Second	Inventor and Assignor:	David	James MC	NTGOMERY
Inventor's signature:	Of Montgameny		Date:	17-7-2013
Post Office Address:	c/o SHARP LABORATORIES OF	EUROPE,	LTD.	
	Edmund Halley Road, Oxford Sci	ience Park,	Oxford, O	X4 4GB, United Kingdom
•				
Full Name of Third Ir	ventor and Assignor:	Sarah	Anne MIT	CHELL
Inventor's signature:	Soul Mitchell		Date:	17/07/20151
Post Office Address:	c/o SHARP LABORATORIES OF	EUROPE,	LTD.	
	Edmund Halley Road, Oxford Sci	ence Park,	Oxford, O	X4 4GB, United Kingdom
	-			
Full Name of Fourth	Inventor and Assignor:	Koji TA	KAHASH	
Inventor's signature:			Date:	
Post Office Address:	c/o Sharp Kabushiki Kaisha, 22-2 545-8522 Japan	2, Nagaike	-cho, Aber	no-ku, Osaka-shi, Osaka
				:
CUI	FOR FOR ANY OF THE FOLLOW!	INO ADDE	D D 4 O E (O	\ \AII HOLL
FORM	ECK FOR ANY OF THE FOLLOW! A PART OF THIS COMBINED DE	CLARATIO	N AND AS) WHICH SSIGNMENT
Signature for six	th and subsequent joint inventors	and assigno	ors; numbe	er of pages added
Added page to t	his combined declaration and assignart (CIP) application.	gnment for	divisional,	continuation, or
X This combined de	claration and assignment ends witl	h this page		

3

COMBINED DECLAR	ATION AND ASSIGNMENT US (ORIGINAL, DESIGN, NATI		
Title: Headlight Syste	em Incorporating Adaptive Bea	m Function	
	I. DECLAR	ATION	
As a below named invent	or or joint inventor, I hereby de	clare that:	
This declaration is directe	ed to:		
(a) the attached a	application, or		
(b) X United States filed on 2	application or PCT international 3 July 2013	l application number _	13/948,724
The above-identified appl	lication was made or authorized	l by me.	
I believe that I am the orig	ginal inventor or an original join	t inventor of a claimed i	nvention in the application.
I hereby state that I have	reviewed and understand the c	contents of the above-id	entified application.
	e duty to disclose to the U.S. Pantability as defined in 37 C.F.R.		ffice all information known to
	at any willful false statement m nent of not more than five (5) ye		is punishable under 18 USC
	PRIORITY	CLAIM	
for patent or inventor's content than the United State for patent or inventor's content or inventorial or inventor's content or inventorial or inventoria	ority benefits under Title 35, Un ertificate or of any PCT internat tes of America listed below and ertificate or any PCT internation es of America filed by me on the nich priority is claimed.	ional application(s) des have also identified bel onal application(s) desig	ignating at least one country ow any foreign application(s) gnating at least one country
(c) no such applic	cation have been filed.		
(d) X such applicati	ons have been filed as follows.		
	FOREIGN APPLICATION(S), ONTHS FOR DESIGN) PRIOR		
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC §119
United Kingdom	1213299.9	26.07.2012	X Yes No Yes No Yes No

II. ASSIGNMENT

As a below named assignor, for good and valuable consideration acknowledged and received I hereby sell and assign my entire worldwide right, title and interest in the application and the invention(s), so far as concerns the United States and the Territories and Possessions thereof to:

ASSIGNEE:

SHARP KABUSHIKI KAISHA 22-22, Nagaike-cho Abeno-ku, Osaka-shi Osaka, Japan 545-8522

Including:

any and all related patent application(s) in the United States, including continuations, continuations-in-part, divisionals, conversions, renewals, substitutes, reissues, reexaminations, extensions, non-provisional applications, and other applications based in whole or in part upon the invention(s) or upon the application(s);

any and all Letters Patent, renewals, reissues, reexamination certificates and extensions of Letters Patent granted for the invention(s) or upon the application(s); and

every priority right that is or may be predicated upon or arise from the invention(s), the application(s) and the Letters Patent.

I additionally authorize the Assignee to file patent applications in my or the Assignee's name for Letters Patent in any country (by international convention, treaty or otherwise), to be held and enjoyed by the Assignee, its successors and assigns, to the full end of the term or terms for which Letters Patent respectively may be granted, reissued, reexamined or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this Assignment and transfer not been made.

I hereby covenant that I have the full right to convey the entire interests herein assigned, and that I have not executed and will not execute any agreement in conflict herewith and that such assigned rights are not encumbered by any grant, license or other right previously given.

I agree that each time a request is made, and without undue delay, I will execute and deliver all such papers as may be necessary or desirable to perfect the title in and to the invention(s), the application(s) and the Letters Patent, to the Assignee, its successors or assigns.

I agree, without undue delay, to undertake all reasonable acts to assure that said invention(s), patent application(s) and Letters Patent shall be held and enjoyed by the Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly: to execute and deliver to the Assignee all lawful documents including petitions, specifications, oaths, declarations, powers of attorney, assignments, invention disclaimers and lawful affidavits in form and substance which may be requested by the Assignee; to furnish the Assignee with all facts relating to said invention(s) or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be useful for establishing the facts of conception, disclosure and reduction to practice of said invention(s); and to testify in any proceedings relating to said invention(s), patent application(s) and Letters Patent.

I authorize the patent attorney of record and/or having power of attorney in the U.S. patent application identified above to insert the serial number and filing date information for the patent application in the appropriate spaces in this document when that information becomes available.

2

Full Name of Sole or First Inventor and Assignor: James Rowland SUCKLING					
Inventor's signature:			Date:		
Post Office Address:	c/o SHARP LABORATORIES C	F EUROPE,	LTD.		
	Edmund Halley Road, Oxford S	cience Park,	Oxford, O	X4 4GB, United Kingdom	
Full Name of Second	Inventor and Assignor:	David	lamoe MC	NTGOMERY	
	mivemor and Assignor.	David		NTGOMENT	
Inventor's signature:			Date:		
Post Office Address:	c/o SHARP LABORATORIES C	•			
	Edmund Hailey Road, Oxford S	cience Park,	Oxford, O	X4 4GB, United Kingdom	
Full Name of Third In	ventor and Assignor:	Sarah A	Anne MIT	CHELL	
Inventor's signature:	,		Date:		
Post Office Address:	c/o SHARP LABORATORIES C	F EUROPE.	LTD.		
	Edmund Halley Road, Oxford Science Park, Oxford, OX4 4GB, United Kingdom				
		77187874	,		
Full Name of Fourth	Inventor and Assignor:	Koji TA	KAHASH	l	
Inventor's signature:	Plaj Wahashi		Date:	July 17,2013	
Post Office Address:	c/o Sharp Kabushiki Kaisha, 22-22, Nagaike-cho, Abeno-ku, Osaka-shi, Osaka 545-8522 Japan				
CHI FORM	ECK FOR ANY OF THE FOLLOV A PART OF THIS COMBINED D	VING ADDED) PAGE(S N AND AS) WHICH SSIGNMENT	
Signature for six	th and subsequent joint inventors	s and assigno	rs; numbe	er of pages added	
	his combined declaration and ass part (CIP) application.	signment for o	divisional,	continuation, or	
X This combined de	claration and assignment ends w	ith this page.			

PATENT REEL: 031217 FRAME: 0919