504450720 07/11/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT4497421

Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YONGQIANG CAO	06/20/2017
NARAYAN SRINIVASA	06/21/2017
SHANKAR R. RAO	06/21/2017

RECEIVING PARTY DATA

Name:	HRL LABORATORIES, LLC
Street Address:	3011 MALIBU CANYON ROAD
City:	MALIBU
State/Country:	CALIFORNIA
Postal Code:	90265

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15585032

CORRESPONDENCE DATA

Fax Number: (310)943-2736

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: 310-589-8158

Email: officeactions@topemckay.com
Correspondent Name: TOPE-MCKAY & ASSOCIATES

Address Line 1: 30745 PACIFIC COAST HIGHWAY #420

Address Line 4: MALIBU, CALIFORNIA 90265

ATTORNEY DOCKET NUMBER:	HRL512
NAME OF SUBMITTER:	RACHEL HERRERA
SIGNATURE:	/Rachel Herrera/
DATE SIGNED:	07/11/2017

Total Attachments: 3

source=HRL512_160101-ASG-170711#page1.tif source=HRL512_160101-ASG-170711#page2.tif source=HRL512_160101-ASG-170711#page3.tif

PATENT 504450720 REEL: 042967 FRAME: 0862

Attorney Docket: HRL512 HRL docket No.: 160101

Invention Title: AN EFFICIENT HYBRID METHOD FOR EGO-MOTION FROM VIDEOS CAPTURED

USING AN AERIAL CAMERA

ASSIGNMENT

WHEREAS, I, Yongqiang Cao, 124 Boyd Street, Newton, MA 02458, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in AN EFFICIENT HYBRID METHOD FOR EGO-MOTION FROM VIDEOS CAPTURED USING AN AERIAL CAMERA (hereinafter "Invention") for which a United States utility patent application was filed May 2, 2017, Application Serial No. 15/585,032.

AND

WHEREAS, HRL Laboratories, LLC, a limited liability company organized and existing under the laws of the State of Delaware, United States of America and having a place of business at 3011 Malibu Canyon Road, Malibu, California, United States of America, (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the Invention within the United States of America and its territorial possessions, and in all foreign countries and jurisdictions in which intellectual or industrial property protection may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt whereof I hereby acknowledge, I, the Assignor desire to and do hereby assign, sell, and transfer unto Assignee the full and exclusive right to the Invention in the United States of America and its territorial possessions and in all foreign countries and jurisdictions, as well as, the entire right, title and interest in and to any and all intellectual or industrial property rights including, but not limited to, patents, designs, utility models, and inventor certificates which may be granted therefor in the United States of America and its territorial possessions and in all foreign countries and jurisdictions. I hereby authorize and request the U.S. Patent and Trademark Office and the equivalent offices of foreign countries and jurisdictions, to issue to the Assignee, any and all applicable intellectual or industrial property rights in the Invention, for the Assignee's sole use and benefit, for the full extent of the term for which United States and foreign patents and the like may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

I further covenant and agree with the Assignee that I have full and unencumbered title to the invention hereby assigned, which title I warrant unto the Assignee, and I further agree that I will, without demanding any further consideration therefor, and at the request and at the expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing, or reexamining United States and foreign patents or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and any and all intellectual or industrial property rights therein, particularly in cases of interference, conflict, opposition, and litigation.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

Executed this 20th day of	June,2017,	
at portland	(city)	year
		(Signature)

PATENT REEL: 042967 FRAME: 0863 Attorney Docket: HRL512 HRL docket No.: 160101

Invention Title: AN EFFICIENT HYBRID METHOD FOR EGO-MOTION FROM VIDEOS CAPTURED

USING AN AERIAL CAMERA

ASSIGNMENT

WHEREAS, I, Narayan Stinivasa of 5626 N.W. Primino Avenue, Portland, OR 97229, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in AN EFFICIENT HYBRID METHOD FOR EGO-MOTION FROM VIDEOS CAPTURED USING AN AERIAL CAMERA (hereinafter "Invention") for which a United States utility patent application was filed May 2, 2017, Application Serial No. 15/585,032.

AND

WHEREAS, HRL Laboratories, LLC, a limited liability company organized and existing under the laws of the State of Delaware, United States of America and having a place of business at 3011 Malibu Canyon Road, Malibu, California, United States of America, (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the Invention within the United States of America and its territorial possessions, and in all foreign countries and jurisdictions in which intellectual or industrial property protection may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt whereof I hereby acknowledge, I, the Assignor desire to and do hereby assign, sell, and transfer unto Assignee the full and exclusive right to the Invention in the United States of America and its territorial possessions and in all foreign countries and jurisdictions, as well as, the entire right, title and interest in and to any and all intellectual or industrial property rights including, but not limited to, patents, designs, utility models, and inventor certificates which may be granted therefor in the United States of America and its territorial possessions and in all foreign countries and jurisdictions. I hereby authorize and request the U.S. Patent and Trademark Office and the equivalent offices of foreign countries and jurisdictions, to issue to the Assignee, any and all applicable intellectual or industrial property rights in the Invention, for the Assignee's sole use and benefit, for the full extent of the term for which United States and foreign patents and the like may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

I further covenant and agree with the Assignee that I have full and unencumbered title to the invention hereby assigned, which title I warrant unto the Assignee, and I further agree that I will, without demanding any further consideration therefor, and at the request and at the expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing, or reexamining United States and foreign patents or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and any and all intellectual or industrial property rights therein, particularly in cases of interference, conflict, opposition, and litigation.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

Executed this	day of		
ш	143113-200	(city)	(Signature)

PATENT REEL: 042967 FRAME: 0864 Attorney Docket: HRL512 HRL docket No.: 160101

Invention Title: AN EFFICIENT HYBRID METHOD FOR EGO-MOTION FROM VIDEOS CAPTURED

USING AN AERIAL CAMERA

ASSIGNMENT

WHEREAS, I, Shankar R. Rao, 29230 Hillrise Drive, Agoura Hills, CA 91301, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in AN EFFICIENT HYBRID METHOD FOR EGO-MOTION FROM VIDEOS CAPTURED USING AN AERIAL CAMERA (hereinafter "Invention") for which a United States utility patent application was filed May 2, 2017, Application Serial No. 15/585,032.

AND

WHEREAS, HRL Laboratories, LLC, a limited liability company organized and existing under the laws of the State of Delaware, United States of America and having a place of business at 3011 Malibu Canyon Road, Malibu, California, United States of America, (hereinafter "Assignee"), is desirous of acquiring the entire right, title, and interest in the Invention within the United States of America and its territorial possessions, and in all foreign countries and jurisdictions in which intellectual or industrial property protection may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt whereof I hereby acknowledge, I, the Assignor desire to and do hereby assign, sell, and transfer unto Assignee the full and exclusive right to the Invention in the United States of America and its territorial possessions and in all foreign countries and jurisdictions, as well as, the entire right, title and interest in and to any and all intellectual or industrial property rights including, but not limited to, patents, designs, utility models, and inventor certificates which may be granted therefor in the United States of America and its territorial possessions and in all foreign countries and jurisdictions. I hereby authorize and request the U.S. Patent and Trademark Office and the equivalent offices of foreign countries and jurisdictions, to issue to the Assignee, any and all applicable intellectual or industrial property rights in the Invention, for the Assignee's sole use and benefit, for the full extent of the term for which United States and foreign patents and the like may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

I further covenant and agree with the Assignee that I have full and unencumbered title to the invention hereby assigned, which title I warrant unto the Assignee, and I further agree that I will, without demanding any further consideration therefor, and at the request and at the expense of the Assignee, do all lawful and just acts, including the execution and acknowledgment of instruments, that may be or become necessary for obtaining, sustaining, extending, reissuing, or reexamining United States and foreign patents or the like for the Invention, and for maintaining and perfecting the Assignee's right to the Invention and any and all intellectual or industrial property rights therein, particularly in cases of interference, conflict, opposition, and litigation.

IN TESTIMONY WHEREOF, I have hereunto set my hand.

Executed this 215t day of June, 2017,	
at Malibu, (A. (city),	Shah
	(Signature)

PATENT REEL: 042967 FRAME: 0865

RECORDED: 07/11/2017