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SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT				
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CONVEYING PART	Υ DATA						
		Name		Execution Date			
YONGQIANG CAO				10/26/2016			
NARAYAN SRINIVA	SA						
RECEIVING PARTY	' DATA						
Name:	HRL L	ABORATORIES, LLC					
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City:	MALIB	J					
State/Country:	CALIF	DRNIA					
Postal Code:	90265						
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Attorney Docket: HRL451 HRL docket No.: 141114 Invention Title: A FAST ROBUST METHOD FOR COMPENSATING EGO-TRANSLATIONS AND DETECTING INDEPENDENT MOVING OBJECTS IN VIDEO CAPTURED WITH A MOVING CAMERA

ASSIGNMENT

WHEREAS, I, Yongqiang Cao of 124 Boyd Street, Newton, MA 02458, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in A FAST ROBUST METHOD FOR COMPENSATING EGO-TRANSLATIONS AND DETECTING INDEPENDENT MOVING OBJECTS IN VIDEO CAPTURED WITH A MOVING CAMERA (hereinafter "Invention") for which a United States patent application was filed on August 29, 2016, Application Serial No. 15/250,665.

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	26	th	day of _	october.	2016,
at	po M	ila	×d	(sity)	

Cas

(Signature)

PATENT REEL: 040273 FRAME: 0724

Attorney Docket: HRL451 HRL docket No.: 141114 Invention Title: A FAST ROBUST METHOD FOR COMPENSATING EGO-TRANSLATIONS AND DETECTING INDEPENDENT MOVING OBJECTS IN VIDEO CAPTURED WITH A MOVING CAMERA

ASSIGNMENT

WHEREAS, I, Narayan Srinivasa of 5626 N.W. Primino Ave., Portland, OR 97229, United States of America (hereinafter "Assignor") have invented certain new and useful improvements in A PAST ROBUST METHOD FOR COMPENSATING EGO-TRANSLATIONS AND DETECTING INDEPENDENT MOVING OBJECTS IN VIDEO CAPTURED WITH A MOVING CAMERA (hereinafter "Invention") for which a United States patent application was filed on August 29, 2016, Application Serial No. 15/250,665.

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 7th day of November 2016, at <u>Portland</u> (city).

RECORDED: 11/10/2016