FORM PTO-1595 (Rev. 6-93)	11-04-2003 Patent and Trademark Office
OMB No. 0651-0011 (exp. 4/94)  Tab settings ⇔⇔⇔  Tab settings ⇔⇔⇔	OUR FILE TRW(TE)6489
To the Honorable Commissioner of Patents ε	102591460 original documents or copy thereof.
Name of conveying party(ies):     Yun Luo Russell J. Lynch     Jon K. Wallace Farid Khairallah     Robert Dziadula  Additional name(s) of conveying party(ies) attached □ Yes ☑ No	2. Name and address of receiving party(ies)  Name: TRW Automotive U.S. LLC  Internal Address:
3. Nature of conveyance:  Assignment	Street Address: 12025 Tech Center Drive  City:Livonia State: MI Zip: 48150  Additional name(s) and address(es) attached?  Yes  No
A. Patent Application No.(s)	B. Patent No.(s)
Name and address of party to whom correspondence concerning document should be mailed:	rs attached?
Name: Barry L. Tummino Internal Address: Tarolli, Sundheim, Covell, Tummino & Szabo L.L.P.	7. Total fee (37 CFR 3.41)\$40.00  ☑ Enclosed ☐ Authorized to be charged to deposit account.
Street Address: 526 Superior Avenue  City: Cleveland State: Ohio Zip: 44114-1400  DO No	8. Deposit Account No.  20-0090  (Attach duplicate copy of this page if paying by deposit account)  OT USE SPACE
Barry L. Tummino Name of Person Signing Reg. No.	formation is true and correct and any attached copy is a true copy of the  October 24, 2003  Date  Cover sheet, attachments, and document: 4

Mail Documents to be recorded with required cover sheet Information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington D.C. 20231

10/29/2003 HMARZII <u>000 AZ 2003. 42</u> 04 FC:8021 10/29/2003 HMARZII 00000047 10692949 04 FC:8021 40.00 DP

**REEL: 014645 FRAME: 0035** 

## **ASSIGNMENT**

WHEREAS, we, Yun Luo, Jon K. Wallace, Robert Dziadula, Russell J. Lynch and Farid Khairallah, of Livonia, County of Wayne, and State of Michigan; of Redford, County of Wayne, and State of Michigan; of Farmington Hills, County of Oakland, and State of Michigan; of West Bloomfield, County of Oakland, and State of Michigan; and of Farmington Hills, County of Oakland, and State of Michigan respectively, have made new and useful improvements in METHOD AND APPARATUS FOR SELF-DIAGNOSTICS OF A VISION SYSTEM;

WHEREAS, TRW Automotive U.S. LLC, a limited liability company duly organized and existing under the laws of the State of Delaware, having a place of business at Livonia, County of Wayne, State of Michigan, is desirous of acquiring the entire right, title and interest in and to the said improvements and all patents therefor to be obtained in the United States of America and countries foreign to the United States;

NOW THEREFORE, BE IT KNOWN that for valuable considerations to us paid, the receipt whereof is hereby acknowledged, we, the said Yun Luo, Jon K. Wallace, Robert Dziadula, Russell J. Lynch and Farid Khairallah do hereby assign, sell and set over unto the said TRW Automotive U.S. LLC its successors or assigns, the entire right, title and interest in and to the said improvements and any and all inventions pertaining thereto, the application for United States patent executed by us respectively on the 30th day of 5eptember 2003, 30th day of September 2003, 30th day of September 2003, and the 30th day of September 2003, all patents therefor in the United States of America and elsewhere, and the right to apply for patents therefor in all countries foreign to the United States and to claim for such applications the priority of United States applications, and we hereby request the Commissioner of Patents of the United States, and any official of any country or countries foreign to the United States whose duty it is to issue patents, to issue such patents to the said TRW Automotive U.S. LLC its successors or assigns; and we further agree to execute such other applications and other instruments and do all other acts as may be deemed necessary by the said TRW Automotive U.S. LLC its successors or assigns in order to fully secure, protect and preserve its rights to the said improvements and to obtain patents therefor in the United States of America and all countries foreign to the United States, all without further consideration but at the expense of the said TRW Automotive U.S. LLC its successors or assigns.

Signed at Farmington County of Oakland This 30th	HiUs day of	and State of Michigan September, 2003.	
		Yun Luo	_

STATE OF Michigan )
COUNTY OF Cakland

On this day of September, 2043.

Personally appeared before me Yun Luo to me known to be the person named in and who executed the above instrument, and acknowledged to me that he executed the same for the uses and the purposes therein mentioned.

DIANNA LANE JAMES NOTARY PUBLIC WAYNE CO., MI MY COMMISSION EXPIRES Sep 3, 2007

Acting in Carles PATENT A

**REEL: 014645 FRAME: 0036** 

Signed at Farmington Hills County of Oakland and State of MI This 30th day of September, 2003.
Jon K. Wallace
STATE OF Michigan ) COUNTY OF Carland ) On this 30 44 day of September, 2003.
On this 30 day of Jeptenton, 20 03.  Personally appeared before me Jon K. Wallace to me known to be the person named in and who executed the above instrument, and acknowledged to me that he executed the same for the uses and the purposes therein mentioned.
DIANNA LANE JAMES NOTARY PUBLIC WAYNE CO., MI MY COMMISSION EXPIRES SOP 3, 2007  Notary Rublic  Acting in Cakland County
Signed at Farmington Hills County of Oakland and State of Michigan This 30th day of September, 2003
Robert Dziadula
STATE OF Michigan ) COUNTY OF Cakland )
On this day of September , 20 %.  Personally appeared before me Robert Dziadula to me known to be the person named in and who executed the above instrument, and acknowledged to me that he executed the same for the uses and the purposes therein mentioned.
Deana Lane James  Notary Public  Heting in Cakland County

DIANNA LANE JAMES NOTARY PUBLIC WAYNE CO., MI MY COMMISSION EXPIRES Sep 3, 2007

> PATENT REEL: 014645 FRAME: 0037

Signed at FARMINGTON County of OAKLAND This 30 <sup>1</sup> +	and State of MICHIGAN day of SEPTEMBER, 2003
•	Russell J. Lynch
	day of <i>September</i> , 20 <i>03.</i> e Russell J. Lynch to me known to be the person
	above instrument, and acknowledged to me that he and the purposes therein mentioned.
	Diana Lane James  Acting in Children Country  DIANNA LANE JAMES  NOTARY PUBLIC WAYNE CO., MI  MY COMMISSION EXPIRES Sep 3, 2007
Signed at FARMIN County of OAKLAND This 30 th	and State of MICHIGAN day of SEPTEMBER, 2003
•	Farid Khairallah
named in and who executed the	day of September, 2008.  The Farid Khairallah to me known to be the person e above instrument, and acknowledged to me that he and the purposes therein mentioned.
	Notary Public  Acting in Cakland Country  DIANNA LANE JAMES  NOTARY PUBLIC WAYNE CO., MI  MY COMMISSION EXPIRES Sep 3, 2007

PATENT RECORDED: 10/24/2003 REEL: 014645 FRAME: 0038