

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT | | | | | | |
|---|---|---------------|----------------|---------------------|------------|----------------------|------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT | | | | | | |
| CONVEYING PARTY DATA | | | | | | | |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Thomas G. Leone</td> <td>09/25/2013</td> </tr> <tr> <td>Gopichandra Surnilla</td> <td>09/18/2013</td> </tr> </tbody> </table> | | Name | Execution Date | Thomas G. Leone | 09/25/2013 | Gopichandra Surnilla | 09/18/2013 |
| Name | Execution Date | | | | | | |
| Thomas G. Leone | 09/25/2013 | | | | | | |
| Gopichandra Surnilla | 09/18/2013 | | | | | | |
| RECEIVING PARTY DATA | | | | | | | |
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| PROPERTY NUMBERS Total: 1 | | | | | | | |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14038555</td> </tr> </tbody> </table> | | Property Type | Number | Application Number: | 14038555 | | |
| Property Type | Number | | | | | | |
| Application Number: | 14038555 | | | | | | |
| CORRESPONDENCE DATA | | | | | | | |
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| Date: | 09/26/2013 | | | | | | |
| Total Attachments: 2 source=Executed Assignment 83391650#page1.tif source=Executed Assignment 83391650#page2.tif | | | | | | | |

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Please direct all correspondence to customer number: 36865

Attorney Docket Number 83391650

ASSIGNMENT AND DECLARATION (37 C.F.R. 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76)

Title of Invention **METHODS AND SYSTEMS FOR DETERMINING ENGINE SPARK TIMING**

This declaration is directed to:

The attached application, or
 United States application or PCT international application number
_____ filed on _____

The above-identified application was made or authorized to be made by me.

I hereby state that I have reviewed and understand the contents of the specification in the above-identified application, including the claims.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I am aware of the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Pursuant to my employment agreement heretofore made or by contractual obligation, I do sell, assign and set over unto FORD GLOBAL TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws of the State of Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, hereinafter referred to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and interest, domestic and foreign, in and to the inventions and discoveries in the above-identified invention including the right of the ASSIGNEE, its successors, assigns or other legal representatives to make applications and to receive Letters Patent for the inventions and discoveries in any and all countries, entities and intergovernmental organizations, in its or their own name or names, or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to insert the serial/application number and filing date of the application to receive Letters Patent herein: Serial No. 14/038,555, Filing Date September 26, 2013), and I hereby sell, assign and set over to the ASSIGNEE, its successors, assigns or other legal representatives, all rights of priority, including any provisional applications, in and to the inventions and discoveries in any and all countries, entities and intergovernmental organizations including all applications claiming benefit of the filing date hereof, continuations, continuations-in-part, divisionals, reexaminations and reissue applications.

And I hereby agree for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, including applications for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental organizations, and to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives may deem necessary to secure thereto the rights herein sold, assigned and set over.

And I hereby represent and warrant that I have not granted any rights inconsistent with the rights granted herein.

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.

LEGAL NAME OF INVENTOR

Inventor: Thomas G. Leone Date: 2013-09-25

Signature: Tom Leone

Note: An Application Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional declaration form for each additional inventor.

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And I hereby agree for myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, including applications for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental organizations, and to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives may deem necessary to secure thereto the rights herein sold, assigned and set over.

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LEGAL NAME OF INVENTOR
Inventor: Gopichandra Surnilla Date: 9/18/13
Signature: 

Note: An Application Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional declaration form for each additional inventor.

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