

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT																
NATURE OF CONVEYANCE:	ASSIGNMENT																
<b>CONVEYING PARTY DATA</b>																	
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Steven Wooldridge</td> <td>08/19/2013</td> </tr> <tr> <td>Gopichandra Surnilla</td> <td>08/08/2013</td> </tr> <tr> <td>Brad Alan Boyer</td> <td>08/19/2013</td> </tr> <tr> <td>James Alfred Hilditch</td> <td>08/16/2013</td> </tr> <tr> <td>Michael Howard Shelby</td> <td>08/19/2013</td> </tr> <tr> <td>Chris Paul Glugla</td> <td>08/13/2013</td> </tr> <tr> <td>Benjamin Richard Petersen</td> <td>08/16/2013</td> </tr> </tbody> </table>		Name	Execution Date	Steven Wooldridge	08/19/2013	Gopichandra Surnilla	08/08/2013	Brad Alan Boyer	08/19/2013	James Alfred Hilditch	08/16/2013	Michael Howard Shelby	08/19/2013	Chris Paul Glugla	08/13/2013	Benjamin Richard Petersen	08/16/2013
Name	Execution Date																
Steven Wooldridge	08/19/2013																
Gopichandra Surnilla	08/08/2013																
Brad Alan Boyer	08/19/2013																
James Alfred Hilditch	08/16/2013																
Michael Howard Shelby	08/19/2013																
Chris Paul Glugla	08/13/2013																
Benjamin Richard Petersen	08/16/2013																
<b>RECEIVING PARTY DATA</b>																	
Name:	Ford Global Technologies, LLC																
Street Address:	Fairlane Plaza South, Suite 800																
Internal Address:	330 Town Center Drive																
City:	Dearborn																
State/Country:	MICHIGAN																
Postal Code:	48126																
<b>PROPERTY NUMBERS Total: 1</b>																	
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13975063</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13975063												
Property Type	Number																
Application Number:	13975063																
<b>CORRESPONDENCE DATA</b>																	
Fax Number:	5034594142																
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																	
Phone:	503-459-4141																
Email:	fulton@ahmrt.com																
Correspondent Name:	ALLEMAN HALL MCCOY RUSSELL & TUTTLE, LLP																
Address Line 1:	806 S.W. BROADWAY, SUITE 600																
Address Line 4:	PORTLAND, OREGON 97205																
ATTORNEY DOCKET NUMBER:	83379704																

CH \$40.00 13975063

PATENT

NAME OF SUBMITTER:	Maxfield Fulton
Signature:	/Maxfield Fulton/
Date:	08/26/2013
<b>Total Attachments: 7</b> source=Executed Assignment 83379704#page1.tif source=Executed Assignment 83379704#page2.tif source=Executed Assignment 83379704#page3.tif source=Executed Assignment 83379704#page4.tif source=Executed Assignment 83379704#page5.tif source=Executed Assignment 83379704#page6.tif source=Executed Assignment 83379704#page7.tif	

Please direct all correspondence to customer number: 36865

Attorney Docket Number | 83379704

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 | METHOD AND SYSTEM FOR KNOCK CONTROL

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. 13/975,063, Filing Date August 23, 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: Steven Wooldridge | Date: 8/19/2013

Signature: [Handwritten 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.

Please direct all correspondence to customer number: 36865

Attorney Docket Number 83379704

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 METHOD AND SYSTEM FOR KNOCK CONTROL

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. 13/975,063, Filing Date August 23, 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: Gopichandra Surilla Date: 8/8/2013

Signature: [Handwritten 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.

Please direct all correspondence to customer number: 36865

Attorney Docket Number | 83379704

**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 | **METHOD AND SYSTEM FOR KNOCK CONTROL**

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.

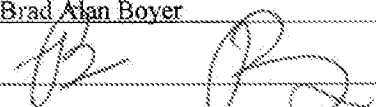
I am aware of the duty to disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date 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. 13/975,063, Filing Date August 23, 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: Brad Alan Boyer Date: 8-19-2013  
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.





Please direct all correspondence to customer number: 36865

Attorney Docket Number 83379704

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 METHOD AND SYSTEM FOR KNOCK CONTROL

This declaration is directed to:
[X] 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. 13/975,063, Filing Date August 23, 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: Chris Paul Glugla Date: 8/13/2013
Signature: [Handwritten Signature]

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



