### 504768185 02/07/2018

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4814913

UBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY D	ΑΤΑ			
		Name	Execution Date	
JASON MEYER			01/18/2018	
KEVIN RAY RUYBAL			01/16/2018	
JEFFREY DOERING			01/17/2018	
MATTHEW JOHN SHE	LTON		01/10/2018	
RECEIVING PARTY DA	ATA			
Name:	FORD	FORD GLOBAL TECHNOLOGIES, LLC		
Street Address:	FAIRL	FAIRLANE PLAZA SOUTH SUITE 800		
Internal Address:	330 TC	330 TOWN CENTER DRIVE		
City:	DEARE	DEARBORN		
State/Country:	MICHIGAN			
	48126			
		Number		
Postal Code: PROPERTY NUMBERS Property Type Application Number:				
PROPERTY NUMBERS Property Type Application Number:	S Total: 1	Number		
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PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will k using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 4:	S Total: 1	Number         15891169         (971)871-8021 <b>o the e-mail address first; if that is unsuccess d; if that is unsuccessful, it will be sent via U</b> 9712718020         casperson@mccrus.com         MCCOY RUSSELL LLP         806 S.W. BROADWAY, SUITE 600         PORTLAND, OREGON 97205		
PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will b using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 4: TTORNEY DOCKET N	S Total: 1	Number         15891169         (971)871-8021         o the e-mail address first; if that is unsuccess         d; if that is unsuccessful, it will be sent via U         9712718020         casperson@mccrus.com         MCCOY RUSSELL LLP         806 S.W. BROADWAY, SUITE 600         PORTLAND, OREGON 97205         83932832		
PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will b using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 4: TTORNEY DOCKET N AME OF SUBMITTER:	S Total: 1	Number15891169(971)871-8021o the e-mail address first; if that is unsuccess d; if that is unsuccessful, it will be sent via U 9712718020 casperson@mccrus.com MCCOY RUSSELL LLP 806 S.W. BROADWAY, SUITE 600 PORTLAND, OREGON 972058393283283932832CARALINA M. CASPERSON		

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### Please direct all correspondence to customer number: 36865

#### Attorney Docket Number | \$3932832

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

Title of Invention METHODS AND SYSTEM FOR OPERATING A DRIVELINE
This declaration is directed to:
The attached application, or United States application or PCT international application number filed on (I hereby authorize the insertion of the application filing date and number into this form when they become known.)
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 virue 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. <u>15/891,169</u> , Filing Date <u>February 7, 2018</u> , 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 any provisional applications, in and to the inventions and discoveries in any and all countries, entities and intergovernmental organizations including any provisional applications, in and to the inventions and discoveries in any and all countries, entities and intergovernmental organizations 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, cominations, 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.
1 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: Jason Meyer Date: /~/8~/8
Signature:
Note: An Application Data Sheet (PTO/SE/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional declaration form for each additional inventor.

PATENT REEL: 045297 FRAME: 0437

### Please direct all correspondence to customer number: 36865

Attorney Docket Number 83932832

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

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The above-identified app	lication was made or authorized to be made by me.
I hereby state that I hav including the claims.	e reviewed and understand the contents of the specification in the above-identified application,
I believe that I am the ori	ginal inventor or an original joint inventor of a claimed invention in the application.
continuation-in-part appl	disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for lications, material information which became available between the filing date of the prior tall or PCT international filing date of the continuation in part application.
FORD GLOBAL TECHI of the State of Delaware hereinafter referred to as interest, domestic and for of the ASSIGNEE, its so for the inventions and di- name or names, or in my insert the serial applicat <u>15/891,169</u> ASSIGNEE, its success applications, in and to th	tent agreement heretofore made or by contractual obligation. I do sell, assign and set over unto NOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws to having its principal place of business at Dearborn. County of Wayne, and State of Michigan, the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and reign, in and to the inventions and discoveries in the above-identified invention including the right accessors, assigns or other legal representatives and to receive Letters Patent scoveries in any and all countries, entities and intergovernmental organizations, in its or their own name, at its or their election (and 1 hereby authorize the ASSIGNEE or ASSIGNEE's attorney to icn number and filing date of the application to receive Letters Patent herein: Serial No
including applications fo organizations, and to per	nyself, my heirs, successors, assigns or other legal representatives to execute any and all papers, r Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental form any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives ecure thereto the rights herein sold, assigned and set over,
And I hereby represent a	id warrant that I have not granted any rights inconsistent with the rights granted herein.
	at any willful false statement made in this declaration is punishable under $18 \text{ U.S.C. }1001$ by fine for than five (5) years or both.
LEGAL NAME OF INV Invenior: Kevin Ra	
Signature:	
	<ol> <li>Sheet (PTO/SB/14 or equivalent), including manning the entire inventive entity, must accompany this form, a form for each additional inventor.</li> </ol>

PATENT REEL: 045297 FRAME: 0438

#### Please direct all correspondence to customer number: 36865

Attorney Docket Number 83932832

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The above-identified app	dication was made or anthorized to be made by me.			
I hereby state that I hav including the claims.	re reviewed and understand the contents of the specification in the above-identified application,			
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 pric application and the national or PCT international filing date of the continuation-in-part application.				
FORD GLOBAL TECH of the State of Delawar hereinafter referred to a interest, domestic and fo of the ASSIGNEE, its st for the inventions and di name or names, or in my insert the serial/applica 15/891,169 ASSIGNEE, its success applications, in and to th	nent agreement heretofore made or by contractual obligation. I do sell, assign and set over unto NOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws e, having its principal place of business at Dearborn. County of Wayne, and State of Michigan, s the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and reign, in and to the inventions and discoveries in the above-identified invention including the right accessors, assigns or other legal representatives to make applications and to receive Letters Patent scoveries in any and all countries, entities and intergovernmental organizations, in its or their own name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to tion number and filing date of the application to receive Letters Patent herein: Serial No			
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 a	nd 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 INV Investor: Jeffrey D				
Signature:				
	a Sheet $\sqrt[6]{1058B/14}$ or equivalent), including naming the entire inventive entity, must accompany this form, in form for each additional inventor.			

PATENT REEL: 045297 FRAME: 0439

Attorney Docket Number 83932832

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

Title of Invention	METHODS AND SYSTEM FOR OPERATING A DRIVELINE			
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United United	tached application, or I States application or PCT international application number filed on (I hereby authorize the insertion of the application filing date and hen they become known.)			
The above-identified app	plication was made or authorized to be made by me.			
I hereby state that I has including the claims.	ve reviewed and understand the contents of the specification in the above-identified application,			
I believe that I am the or	iginal inventor or an original joint inventor of a claimed invention in the application.			
continuation-in-part app	o disclose information which is material to patentability as defined in 37 C.F.R. 1.56, including for plications, material information which became available between the filing date of the prior and or PCT international filing date of the continuation-in-part application.			
FORD GLOBAL TECH of the State of Delawar hereinafter referred to a interest, domestic and fc of the ASSIGNEE, its s for the inventions and d name or names, or in m insert the serial/applica 15/891,169 ASSIGNEE, its succes applications, in and to th including all applicatio reexaminations and reiss				
including applications for organizations, and to perform the second seco	myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, or Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental rform any and all acts which the ASSIGNEE, its successors, assigns or other legal representatives secure thereto the rights herein sold, assigned and set over.			
And I hereby represent a	ind warrant that I have not granted any rights inconsistent with the rights granted herein.			
or imprisonment of not i	hat any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine more than five (5) years or both.			
LEGAL NAME OF INV				
7777.	John Shelton Date: 7 (0-2016			
Signature: <u>////////</u>	<u>and product and the second seco</u>			
	ta Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form, on form for each additional inventor.			

### PATENT REEL: 045297 FRAME: 0440

### RECORDED: 02/07/2018