#### 505028637 07/31/2018

#### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5075387

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JOHN ERIC ROLLINGER	12/16/2014
KAREN WILLARD	11/06/2014
MICHAEL JOSEPH GIUNTA	12/16/2014
ROBERT ANDREW WADE	11/06/2014
SAMER IBRAHIM	11/06/2014
CASEY DIETRICH	11/06/2014
MATT GEROW	11/12/2014

#### **RECEIVING PARTY DATA**

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

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16050292

#### **CORRESPONDENCE DATA**

**Fax Number:** (971)271-8021

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Phone:** 971-271-8020

Email:roberts@mccrus.comCorrespondent Name:MCCOY RUSSELL LLP

Address Line 1: 806 S.W. BROADWAY, SUITE 600
Address Line 4: PORTLAND, OREGON 97205

ATTORNEY DOCKET NUMBER:	84063546
NAME OF SUBMITTER:	LAURA ROBERTS
SIGNATURE:	/Laura Roberts/

PATENT 505028637 REEL: 046512 FRAME: 0076

DATE SIGNED:	07/31/2018
Total Attachments: 7	
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### Please direct all correspondence to customer number: 36865

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## 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)

THOU AND SASTEM FOR EVELVE COOLING SASTEM 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. 14/583, 393 Filing Date December 26, 2014 ), 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: John Eric Rollinger Dute: \(\mathcal{L}/\left/2-0/4)
Signature: John Eric Rolling
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.

Attorney Docket Number	83472359

Title of Invention METHOD AND SYSTEM FOR ENGINE COOLING SYSTEM CONTROL	<b>8</b>
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.	m,
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 to continuation-in-part applications, material information which became available between the filing date of the priapplication 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 ur FORD GLOBAL TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the lar of the State of Delaware, having its principal place of business at Dearborn, County of Wayne, and State of Michiga hereinafter referred to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title a 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 Pate for the inventions and discoveries in any and all countries, entities and intergovernmental organizations, in its or their or name or names, or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney insert the serial/application number and filing date of the application to receive Letters Patent herein: Serial N 14/583,393 , Filing Date December 26,2014 , and I hereby sell, assign and set over to the ASSIGNEE, its successors, assigns or other legal representatives, all rights of priority, including any provision applications, in and to the inventions and discoveries in any and all countries, entities and intergovernmental organization including all applications claiming benefit of the filing date hereof, continuations, continuations-in-part, divisions reexaminations and reissue applications.	ws an, and ght ent on to io. he nal
And I hereby agree for myself, my heirs, successors, assigns or other legal representatives to execute any and all pape including applications for Letters Patent of any and all kinds and in any and all countries, entities and intergovernment organizations, and to perform any and all acts which the ASSIGNEE, its successors, assigns or other legal representative may deem necessary to secure thereto the rights herein sold, assigned and set over.	tal
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 fi or imprisonment of not more than five (5) years or both.	ne
T TOCAT NAME OF INSTRUCTOR	
Inventor: Karen Willard Date: 1/4/20/4	
Signature: Kaus all/lass	
Note: An Application Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this for Use an additional declaration form for each additional inventor.	m,

Attorney Docket Number	83472359

Title of Invention	METHOD AND SYSTEM FOR ENGINE COOLING SYSTEM CONTROL		
This declaration is direc	This declaration is directed to:		
Unite	ttached application, or d States application or PCT international application number filed on		
The above-identified ap	plication was made or authorized to be made by me.		
I hereby state that I ha including the claims.	we reviewed and understand the contents of the specification in the above-identified application,		
I believe that I am the o	riginal inventor or an original joint inventor of a claimed invention in the application.		
continuation-in-part ap	to 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 onal or PCT international filing date of the continuation-in-part application.		
FORD GLOBAL TECH of the State of Delawa hereinafter referred to interest, domestic and for the ASSIGNEE, its for the inventions and comme or names, or in minsert the serial/applications, its succeapplications, in and to the state of the state of the serial applications, in and to the state of the state	Ament agreement heretofore made or by contractual obligation, I do sell, assign and set over unto HNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing by virtue of the laws re, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and oreign, in and to the inventions and discoveries in the above-identified invention including the right successors, assigns or other legal representatives to make applications and to receive Letters Patent discoveries in any and all countries, entities and intergovernmental organizations, in its or their own manner, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE's attorney to ation number and filing date of the application to receive Letters Patent herein: Serial No.  —, Filing Date December 26,2014—), and I hereby sell, assign and set over to the assors, assigns or other legal representatives, all rights of priority, including any provisional the inventions and discoveries in any and all countries, entities and intergovernmental organizations ons claiming benefit of the filing date hereof, continuations, continuations-in-part, divisionals, usue applications.		
including applications organizations, and to p	myself, my heirs, successors, assigns or other legal representatives to execute any and all papers, for Letters Patent of any and all kinds and in any and all countries, entities and intergovernmental erform 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	and warrant that I have not granted any rights inconsistent with the rights granted herein.		
I hereby acknowledge to or imprisonment of not	that 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 IN			
	VENTOR   Joseph Giunta Date: /2/16/14		
Signature:	d Jak Shir		
Note: An Application Da Use an additional declarat	ata Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. ion form for each additional inventor.		

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Attorney Docket Number	83472359

Title of Inven	method and system for engine cooling syst	EM CONTROL
This declaration	on is directed to:	osanairai, e dif
	The attached application, or United States application or PCT international application numberfiled on	
The above-ident	ntified application was made or authorized to be made by me.	
I hereby state to including the cla	that I have reviewed and understand the contents of the specification in the above-iclaims.	identified application,
I believe that I a	am the original inventor or an original joint inventor of a claimed invention in the applic	cation.
continuation-in-	the duty to disclose information which is material to patentability as defined in 37 C.F. n-part applications, material information which became available between the filing date of the continuation-in-part application.	ng date of the prior
FORD GLOBA of the State of hereinafter referinterest, domest of the ASSIGN for the invention name or names, insert the seria 14/583,3 ASSIGNEE, it applications, in including all a	AL TECHNOLOGIES, LLC, a Ford Motor Company subsidiary, organized and existing of Delaware, having its principal place of business at Dearborn, County of Wayne, an ferred to as the ASSIGNEE, its successors, assigns or other legal representatives, the stic and foreign, in and to the inventions and discoveries in the above-identified inventions and discoveries in any and all countries, entities and intergovernmental organizations, or in my name, at its or their election (and I hereby authorize the ASSIGNEE or ASSIGNEE or ASSIGNEE), Filing Date December 26,2014, and I hereby sell, assign its successors, assigns or other legal representatives, all rights of priority, including and to the inventions and discoveries in any and all countries, entities and intergovernmental organizations or and to the inventions and discoveries in any and all countries, entities and intergovernmental organizations claiming benefit of the filing date hereof, continuations, continuations and reissue applications.	g by virtue of the laws and State of Michigan, entire right, title and on including the right receive Letters Patent ons, in its or their own SIGNEE's attorney to at herein: Serial No. on and set over to the ding any provisional immental organizations s-in-part, divisionals,
including applic	agree for myself, my heirs, successors, assigns or other legal representatives to execut lications for Letters Patent of any and all kinds and in any and all countries, entities a and to perform any and all acts which the ASSIGNEE, its successors, assigns or other essary to secure thereto the rights herein sold, assigned and set over.	and intergovernmental r legal representatives
And I hereby re	represent and warrant that I have not granted any rights inconsistent with the rights grant	ed herein.
	owledge that any willful false statement made in this declaration is punishable under 18	3 U.S.C. 1001 by fine
	ent of not more than five (5) years or both.	
	IE OF INVENTOR Robert Andrew Wade Date: リノる)	12014
Signature:	Telit A Vade	
N. C.	** ***********************************	N
	lication Data Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, musual declaration form for each additional inventor.	st accompany this form.

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Attorney Docket Number	83472359

Title of Invention	METHOD AND SYSTEM FOR ENGINE COOLING SYSTEM CONTROL		
This declaration is direct	ed to:		
☐ United	tached application, or I States application or PCT international application number filed on		
The above-identified app	lication was made or authorized to be made by me.		
I hereby state that I have including the claims.	re reviewed and understand the contents of the specification in the above-identified application,		
I believe that I am the ori	iginal inventor or an original joint inventor of a claimed invention in the application.		
continuation-in-part app	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 nal or PCT international filing date of the continuation-in-part application.		
of the State of Delaware hereinafter referred to as interest, domestic and for of the ASSIGNEE, its suffor the inventions and diname or names, or in my insert the serial/applicat 14/583, 393  ASSIGNEE, its success applications, in and to the	nent agreement beretofore 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 as, having its principal place of business at Dearborn, County of Wayne, and State of Michigan, as 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 ar	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 INVI			
Signature:			
Notes An Ameliantian Paris	Ct. A DTAYON IA		
Use an additional declaration	Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form, a form for each additional inventor.		

Janes Comments of the Comments	~~~~~
Attorney Docket Number 8:	3472359

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This declaration is directed to:			
The attached application, or United States application or PCT international application number			
The above-identi	fied app	olication was made or authorized to be made by me.	
I hereby state the including the clai	at I hav ms.	ve reviewed and understand the contents of the specification in the above-identified application,	
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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. 14/583,393 , Filing Date December 26,2014 ), 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.			
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LEGAL NAME ( Inventor: C:	or inv ssey D	5 M 5 M 7 M 7	
Signature:		ietrich Date: U/6/14	
Note: An Applicat Use an additional d	tion Dat eclaratio	a Sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form, on form for each additional inventor.	

**RECORDED: 07/31/2018** 

Address		
Audinev Docket Number	L 83472350	

# 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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This declara	ation is direct	ed to:		····		
	United	tached application, or States application or PCT	international application filed on	number	,	
The above-i	dentified app	lication was made or autho	orized to be made by me.			
I hereby sta	ite that I hav e claims.	e reviewed and understar	nd the contents of the sp	pecification	in the above-i	dentified application
I believe tha	t I am the ori	ginal inventor or an origin	al joint inventor of a clair	med inventi	on in the applic	cation.
I am aware of	of the duty to	disclose information which ications, material inform al or PCT international fil	ch is material to patentab	oility as defi	ned in 37 C.F.1	en de recei un our mo.
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and I hereby	represent and	warrant that I have not gr	anted any rights inconsist	tent with th	e rights granted	herein.
hereby ackno r imprisonme	owledge that int of not mo	any willful false statemente than five (5) years or bo	at made in this declaration			7
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ivenior;	Matt Gerov			Date:	Nov 12,	<u>, 60/2</u>
ignature: _						
ote: An Appl se an additions	ication Data S	heet (PTO/SB/14 or equivale	ent), including naming the e	entire invent	ive entity, must a	necompany this form.