

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT6041565

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
ALEXANDER STEVEN FRICK	08/08/2019
JASON THOMAS KRAFT	08/08/2019
RYAN DOUGLAS INGVALSON	08/08/2019
RECEIVING PARTY DATA	
Name:	THE TORO COMPANY
Street Address:	8111 LYNDAL AVENUE SOUTH
City:	BLOOMINGTON
State/Country:	MINNESOTA
Postal Code:	55420-1196
PROPERTY NUMBERS Total: 2	
Property Type	Number
Application Number:	16534515
PCT Number:	US2019045443
CORRESPONDENCE DATA	
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<i>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.</i>	
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ATTORNEY DOCKET NUMBER:	0206.000205US01/WO01
NAME OF SUBMITTER:	VINCENT L. PHAM
SIGNATURE:	/Vincent L. Pham/
DATE SIGNED:	04/01/2020
Total Attachments: 5	
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Docket No. 206.02050160
Docket No. 206.02050161
Docket No. 0206.000205US62
Docket No. 0206.000205US01
Docket No. 0206.000205WO01

ASSIGNMENT

Whereas We, **Alexander Steven Frick, Jason Thomas Kraft, and Ryan Douglas Ingvanson**, with residences and citizenships as indicated below;
along with Christopher Charles Osterwood, David Arthur LaRose, Zachary Irvin Parker, Adam Richard Williams, Stephen Paul Elizondo Landers, Michael Jason Ramsay, and Brian Daniel Beyer, have made inventions in

AUTONOMOUS MACHINE NAVIGATION AND TRAINING USING VISION SYSTEM

Filed: August 7, 2019

U.S. Application No.: 16/534,515

Filed: August 7, 2019

International Application No.: PCT/US2019/045443

and executed an application for Letters Patent of the United States of America based thereon and as described in the above-identified patent application filed under the Patent Cooperation Treaty, each of which claim priority to and/or the benefit of at least the following applications:

AUTONOMOUS MACHINE NAVIGATION USING VISION SYSTEM

Filed: August 8, 2018

U.S. Application No.: 62/716,208

Filed: August 9, 2018

U.S. Application No.: 62/716,716

Filed: March 15, 2019

U.S. Application No.: 62/818,893

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we have individually and jointly agreed to assign and transfer and do hereby assign and transfer unto **THE TORO COMPANY** ("Assignee"), a corporation of **Delaware**, having its principal office at **8111 Lyndale Avenue South, Bloomington, Minnesota, 55420-1196, United States of America**, its successors and assigns, our entire right, title, and interest in and to said inventions and applications, and in and to any division or continuation (in whole or in part) of said applications, and in and to any and all improvements in said inventions made by us or any of us or made jointly with others (provided any such improvement is made during, or within one year after the termination of, the employment by the Assignee of whichever of us, solely or jointly with one or more others, has made the same), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon said invention or improvements thereon, to be

For: **AUTONOMOUS MACHINE NAVIGATION USING VISION SYSTEM and
AUTONOMOUS MACHINE NAVIGATION AND TRAINING USING VISION SYSTEM**

held and enjoyed as fully and exclusively as they would have been by us or any of us had this assignment and transfer not been made;

We do further agree for ourselves and for our heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as we lawfully may, that may be deemed necessary by the Assignee, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries;

And we do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent that may be granted upon any of said applications, to **THE TORO COMPANY** as the assignee of the entire right, title, and interest therein.

Further, we covenant and agree with the Assignee, and its successors and assigns, that we have not assigned, granted, mortgaged, licensed, or executed any other agreement affecting the rights and property herein conveyed to others and that we possess the full right to convey these rights and property as herein expressed.

If the filing dates and application numbers are not identified in this Assignment at the time of execution, we authorize the Assignee and its agents, legal representatives, successors and assigns, to insert such information into this Assignment and/or true and correct copies thereof at a later date.

In witness whereof, we have hereunto signed our names on the days and years set forth below.

Name: Alexander Steven Frick
Residence: Farmington, MN
Citizenship: US

8/8/2019

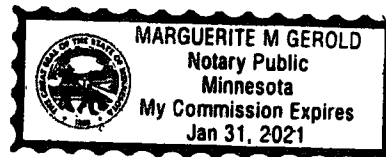
Date

STATE OF Minnesota)

COUNTY OF Hennepin) ss.

On this 8th day of August 2019, before me personally appeared Alexander Steven Frick, to me known to be the person described in and who executed the foregoing instrument, and he/she executed the same for the uses and purposes therein set forth.

Marguerite M. Gerold
Notary Public



Jason Thomas Kraft

8/8/2019

Name: Jason Thomas Kraft
Residence: Stillwater, MN
Citizenship: US

Date

STATE OF Minnesota)
) ss.
COUNTY OF Hennepin)

On this 8th day of August 2019, before me personally appeared Jason Thomas Kraft, to me known to be the person described in and who executed the foregoing instrument, and he/she executed the same for the uses and purposes therein set forth.

Marguerite M. Gerold
Notary Public



