

# PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Jingbo Liu	07/15/2008
Thomas Nondahl	07/15/2008
Peter Schmidt	07/15/2008
Semyon Royak	07/15/2008
Mark Harbaugh	07/15/2008
RECEIVING PARTY DATA	
Name:	Rockwell Automation Technologies
Street Address:	1 Allen-Bradley Drive
City:	Mayfield Heights
State/Country:	OHIO
Postal Code:	44124
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	12183758
CORRESPONDENCE DATA	
Fax Number:	(414)225-9753
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	414-382-4463
Email:	SMDONAHUE@RA.ROCKWELL.COM
Correspondent Name:	ROCKWELL AUTOMATION, INC./BF
Address Line 1:	ATTENTION: SUSAN M. DONAHUE, E-7F19
Address Line 2:	1201 SOUTH SECOND STREET
Address Line 4:	MILWAUKEE, WISCONSIN 53204
ATTORNEY DOCKET NUMBER:	08AB007 (1506.202)
NAME OF SUBMITTER:	Keith M. Baxter

CH \$40.00 12183758

**500609204**

**PATENT**  
**REEL: 021324 FRAME: 0705**

**Total Attachments: 6**

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**PATENT**

**REEL: 021324 FRAME: 0706**

**08AB007-US (ORD)**

**ASSIGNMENT OF INVENTION  
TO  
ROCKWELL AUTOMATION TECHNOLOGIES, INC.**

WHEREAS, **JINGBO LIU** of 1973 Chippewa Ct., Grafton WI 53024, USA, **THOMAS NONDAHL** of 2136 N. 117th St., Wauwatosa WI 53226 2114, USA, **PETER SCHMIDT** of 8139 W. Imperial Dr., Franklin, WI 53132 9722, USA, **SEMYON ROYAK** of 3880 Wild Cherry Trl., Beachwood, OH 44122 7401, USA, and **MARK HARBAUGH** of 3799 W. Streetsboro Rd., Richfield, OH 442869637, USA (hereinafter sometimes referred to as "said inventors"), have invented certain new and useful improvements in **METHOD AND APPARATUS FOR IDENTIFYING ORIENTATION OF A STATIONARY ROTOR IN A SENSOR-LESS PMSM**, which invention (hereinafter sometimes referred to as "said invention") has been disclosed to and filed, under Docket No. **08AB007-US (ORD)**, in the patent files of **ROCKWELL AUTOMATION TECHNOLOGIES, INC.** having a principal place of business at 1 Allen-Bradley Drive, Mayfield Heights, Ohio 44124.

NOW THEREFORE, it is agreed that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, said inventors have sold, assigned and transferred and by these present do sell, assign and transfer unto **ROCKWELL AUTOMATION TECHNOLOGIES, INC.** the entire right, title and interest in said invention in the United States of America and all foreign countries and in and to said U.S. provisional patent application and all patent applications, divisions, substitutions, continuations and continuations-in-part thereof, and in all United States Letters Patents which may be granted thereon and all reissues and extensions thereof, and in all priority rights under the International Convention for the Protection of Industrial Property for every member country, and in all applications for patents (including related rights such as utility-model registrations, inventor's certificates, and the like) heretofore or hereafter filed for said invention in any foreign countries, and in all patents (including all extensions, renewals and reissues thereof) granted for said invention; said applications and patents to be held and enjoyed by the said Rockwell Automation Technologies, Inc., for its own use and for the use of its successors and assigns, to the full end of the term for which Letters Patent on same may be granted, as fully and entirely as the same would have been held by said inventors had this assignment and sale not been made.

FURTHER, said inventors hereby agree to sign all lawful papers necessary or helpful in obtaining patents on said invention or in filing any divisional, continuation, substitution, or reissue patent application or re-examination proceedings on said invention whether in the United States of America or in any foreign country.

08AB007-US (ORD)

ASSIGNMENT OF INVENTION  
TO  
ROCKWELL AUTOMATION TECHNOLOGIES, INC.

Signed:

Date:

Jingbo Liu  
JINGBO LIU

07-15-2008

**CERTIFICATE OF ACKNOWLEDGMENT**

State of WISCONSIN

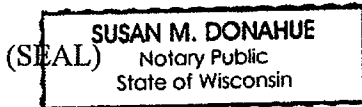
County of MILWAUKEE

On July 15, 2008 before Susan M. Donahue, Notary Public,  
Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared JINGBO LIU  
Name(s) of Signer(s)

\_ personally known to me - OR - \_ proved to me on  
the basis of satisfactory evidence to be the person  
whose name is subscribed to the within instrument  
and acknowledged to me that he executed the same  
in his authorized capacity, and that by his signature  
on the instrument the person, or the entity upon  
behalf of which the person acted, executed the  
instrument.

WITNESS my hand and official seal.



Susan M. Donahue  
Signature of Notary Public  
My Commission Expires: September 19, 2010

08AB007-US (ORD)

ASSIGNMENT OF INVENTION  
TO  
ROCKWELL AUTOMATION TECHNOLOGIES, INC.

Signed:

Date:

Thomas Nondahl  
THOMAS NONDAHL

July 15, 2008

CERTIFICATE OF ACKNOWLEDGMENT

State of WISCONSIN

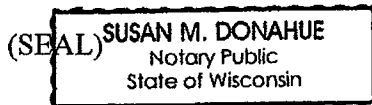
County of MILWAUKEE

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Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared THOMAS NONDAHL  
Name(s) of Signer(s)

\_ personally known to me - OR - \_ proved to me on  
the basis of satisfactory evidence to be the person  
whose name is subscribed to the within instrument  
and acknowledged to me that he executed the same  
in his authorized capacity, and that by his signature  
on the instrument the person, or the entity upon  
behalf of which the person acted, executed the  
instrument.

WITNESS my hand and official seal.



Susan M. Donahue  
Signature of Notary Public  
My Commission Expires: September 19, 2010

08AB007-US (ORD)

ASSIGNMENT OF INVENTION  
TO  
ROCKWELL AUTOMATION TECHNOLOGIES, INC.

Signed:

Date:

*Peter Schmidt*  
PETER SCHMIDT

15-Jul-08

**CERTIFICATE OF ACKNOWLEDGMENT**

State of WISCONSIN

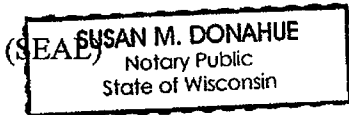
County of MILWAUKEE

On July 15, 2008 before Susan M. Donahue, Notary Public,  
Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared PETER SCHMIDT  
Name(s) of Signer(s)

\_ personally known to me - OR - \_ proved to me on  
the basis of satisfactory evidence to be the person  
whose name is subscribed to the within instrument  
and acknowledged to me that he executed the same  
in his authorized capacity, and that by his signature  
on the instrument the person, or the entity upon  
behalf of which the person acted, executed the  
instrument.

WITNESS my hand and official seal.



*Susan M. Donahue*  
Signature of Notary Public

My Commission Expires: September 19, 2010

08AB007-US (ORD)

ASSIGNMENT OF INVENTION  
TO  
ROCKWELL AUTOMATION TECHNOLOGIES, INC.

Signed:

Date:

Semyon Royak  
SEMYON ROYAK

7/15/2008

**CERTIFICATE OF ACKNOWLEDGMENT**

State of Ohio

County of Cuyahoga

On N. R. Korosec, Notary Public 7/15/08,  
Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared SEMYON ROYAK  
Name(s) of Signer(s)

\_ personally known to me - OR - \_ proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

(SEAL)

N. R. Korosec  
Signature of Notary Public  
My Commission Expires 2/16/10

NANCY R. KOROSEC  
Notary Public, State of Ohio  
My Commission Expires 2-16-10  
Recorded in Lake County

08AB007-US (ORD)

ASSIGNMENT OF INVENTION  
TO  
ROCKWELL AUTOMATION TECHNOLOGIES, INC.

Signed:

Date:



7/15/2008

MARK HARBAUGH

CERTIFICATE OF ACKNOWLEDGMENT

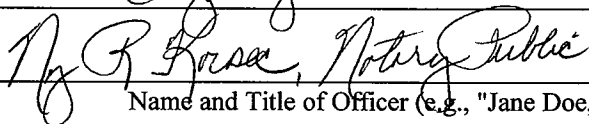
State of

Ohio

County of

Cuyahoga

On

  
Name and Title of Officer (e.g., "Jane Doe, Notary Public")

July 15, 2008

personally appeared

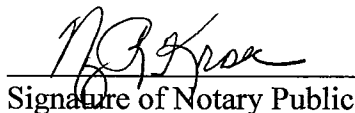
MARK HARBAUGH

Name(s) of Signer(s)

\_ personally known to me - OR - \_ proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

(SEAL)

  
Signature of Notary Public

My Commission Expires 2/16/10

NANCY R. KOROSEC  
Notary Public, State of Ohio  
My Commission Expires 2-16-10  
Recorded in Lake County