

# Main Patents

## ■ Patents registered in 2015

Registration Number	Name	Inventor(s)
Japan Patent 5695711	MOVING MAGNETIC FIELD GENERATING APPARATUS	Satoshi Sugita, Yasushi Misawa, Yu Qi Tang, Shigenori Miyairi
Japan Patent 5702981	LEAD WIRE ENGAGING STRUCTURE AND ELECTRIC APPARATUS	Yen Junchieh, Jiro Watanabe, Hiromitsu Kuribayashi, Shigekazu Mitomo
Japan Patent 5715469	COUNTER-ROTATING AXIAL FLOW FAN	Atsushi Yanagisawa, Honami Osawa
Japan Patent 5718980	FAN MOTOR, INLINE TYPE FAN MOTOR AND ASSEMBLY METHOD OF THE SAME	Katsumichi Ishihara, Masashi Nomura, Tomoko Hayashi
Japan Patent 5727806	CONNECTING STRUCTURE FOR ELECTRIC CABLES AND ELECTRIC APPARATUS	Toshihito Miyashita, Hiroshi Hioki, Masakazu Chikyu
Japan Patent 5739200	FAN WITH REDUCED NOISE	Naoya Inada, Toshiyuki Nakamura, Toshiki Ogawara, Yoshinori Miyabara
Japan Patent 5749639	STATOR	Koji Nakatake, Masaaki Ohashi, Ko Cho
Japan Patent 5750325	ENCODER	Toru Miyajima, Toshiaki Ayuzawa, Yoshihiro Shoji
Japan Patent 5750340	ELECTRIC MACHINE	Satoshi Sugita, Yu Qi Tang, Yasushi Misawa
Japan Patent 5750358	ELECTRIC MACHINE WITH LINEAR MOVER	Satoshi Sugita, Yu Qi Tang, Yasushi Misawa
Japan Patent 5759867	MAGNETIC ENCODER WITH IMPROVED RESOLUTION	Satoshi Sugita, Yu Qi Tang, Yasushi Misawa
Japan Patent 5775981	IMPELLER AND FAN DEVICE	Jiro Watanabe, Masashi Miyazawa, Akira Nakayama
Japan Patent 5781711	MEASUREMENT DEVICE	Katsumichi Ishihara, Takahisa Toda, Yo Muramatsu
Japan Patent 5795881	DRIVING SYSTEM FOR FAN AND METHOD OF DRIVING FAN	Shigekazu Mitomo, Yen Junchieh
Japan Patent 5827851	STATOR CORE AND STATOR	Yu Qi Tang, Satoshi Sugita
Japan Patent 5832052	BIDIRECTIONAL AXIAL FAN DEVICE	Satoshi Fujimaki, Toshiya Nishizawa, Takashi Kawashima
Japan Patent 5839374	MOTOR CONTROL DEVICE	Yuji Ide, Satoshi Yamazaki, Masahisa Koyama
Japan Patent 5839755	FAN CASING AND FAN APPARATUS	Naoya Inada, Honami Osawa
EP Patent 1511164	LINEAR MOTOR WITH REDUCED COGGING FORCE	Satoshi Sugita, Koji Misawa
EP Patent 1560325	MOTOR POSITION CONTROLLER	Yuji Ide
EP Patent 1863150	ROTOR FOR MOTORS	Toshihito Miyashita
EP Patent 2437381	MOVING MAGNETIC FIELD GENERATING APPARATUS	Satoshi Sugita, Yasushi Misawa, Yu Qi Tang, Shigenori Miyairi
U.S. Patent 8928313	MAGNETIC ENCODER WITH IMPROVED RESOLUTION	Satoshi Sugita, Yu Qi Tang, Yasushi Misawa
U.S. Patent 8961121	CENTRIFUGAL FAN	Yen Junchieh, Jiro Watanabe, Hiromitsu Kuribayashi, Shigekazu Mitomo
U.S. Patent 8979513	LEAD WIRE ENGAGING STRUCTURE AND ELECTRIC APPARATUS	Yen Junchieh, Jiro Watanabe, Hiromitsu Kuribayashi, Shigekazu Mitomo
U.S. Patent 9000627	LINEAR MOTER WITH BACK YOKE	Yu Qi Tang

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U.S. Patent 9033680	ELECTRIC FAN	Naruhiko Kudou, Tomoaki Ikeda, Haruhisa Maruyama
U.S. Patent 9035512	LINEAR ACTUATOR	Masanori Tanaka, Shigenori Miyairi
U.S. Patent 9059626	ELECTRIC MACHINE WITH LINEAR MOVER	Satoshi Sugita, Yu Qi Tang, Yasushi Misawa
U.S. Patent 9145896	AXIAL FLOW FAN	Toshiyuki Nakamura, Masahiro Koike, Naoya Inada
U.S. Patent 9178401	LINEAR MOTOR	Satoshi Sugita, Yasushi Misawa, Shigenori Miyairi
U.S. Patent 9178460	MOTOR CONTROLLER	Toshiyuki Nakamura, Yo Muramatsu
U.S. Patent 9203270	STATOR CORE WITH VARIED LAMINATION SHAPES AND SIZES TO REDUCE WIRE INSULATION STRESS	Koji Nakatake, Masaaki Ohashi, Ko Cho
Korea Patent 10-1481472	OPTICAL ENCODER DEVICE	Yoshihiro Shoji, Yoshi Ishizuka, Shoji Ito
Korea Patent 10-1481473	MOTOR CONTROL SYSTEM INCLUDING ELECTRICAL INSULATION DETERIORATION DETECTING SYSTEM	Yuji Ide
Korea Patent 10-1535094	BATTERYLESS ABSOLUTE ENCODER	Kazuhiro Makiuchi, Tomohito Yamazaki, Toru Miyajima, Shigeharu Kato, Toshiaki Ayuzawa
Taiwan Patent I465645	AXIAL FLOW FAN	Toshiyuki Nakamura, Masahiro Koike, Naoya Inada
Taiwan Patent I467902	CURRENT CONTROL TYPE POWER CONVERTER AND OUTPUT CURRENT WAVEFORM IMPROVING METHOD OF CURRENT CONTROL TYPE POWER CONVERTER	Akinori Matsuzaki, Takashi Kobayashi
Taiwan Patent I470903	LINEAR SYNCHRONOUS MOTOR	Yu Qi Tang, Takashi Matsushita, Satoshi Sugita
Taiwan Patent I473945	FAN SYSTEM	Yoshinori Miyabara, Jiro Watanabe, Hiromitsu Kuribayashi
Taiwan Patent I474584	SMALL-SIZED MOTOR	Daigo Kuraishi, Akira Shimizu
Taiwan Patent I484104	AXIAL FLOW FAN	Katsumichi Ishihara
Taiwan Patent I489740	LINEAR SYNCHRONOUS MOTOR	Yu Qi Tang, Satoshi Sugita
Taiwan Patent I495796	CENTRIFUGAL FAN	Yen Junchieh, Hiromitsu Kuribayashi
Taiwan Patent I499197	METHOD OF CONTROLLING MOTOR AND MOTOR CONTROLLING SYSTEM	Yuji Ide, Michio Kitahara
Taiwan Patent I499723	CENTRIFUGAL FAN	Yen Junchieh, Hiromitsu Kuribayashi
Taiwan Patent I500217	ELECTRICAL APPARATUS	Haruhisa Maruyama, Tomoaki Ikeda, Takahisa Toda
Taiwan Patent I501540	MOTOR CONTROLLER	Yuji Ide
Taiwan Patent I504110	LINEAR SYNCHRONOUS MOTOR	Yu Qi Tang, Satoshi Sugita
Taiwan Patent I505624	POWER SUPPLY SYSTEM FOR DRIVING MOTOR	Yuji Ide
Taiwan Patent I508415	ELECTRICAL MACHINE APPARATUS	Satoshi Sugita, Yasushi Misawa, Yu Qi Tang
Taiwan Patent I508425	MOTOR CONTROL METHOD AND MOTOR CONTROL SYSTEM	Yuji Ide, Co-invented with Utsunomiya University
Taiwan Patent I509976	POWER SUPPLY SYSTEM FOR DRIVING MOTOR AND REGENERATION METHOD USING THE SAME	Yuji Ide
Taiwan Patent I514762	SYSTEM INTERCONNECTION INVERTER DEVICE AND CONTROL METHOD THEREOF	Minoru Yanagisawa, Takashi Kobayashi

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<b>China Patent ZL200610160492.6</b>	LINEAR MOTOR	Masashi Miyazawa, Toshiki Ogawara, Tomoaki Ikeda
<b>China Patent ZL201010002029.5</b>	LINEAR MOTOR	Satoshi Sugita, Yasushi Misawa, Yu Qi Tang
<b>China Patent ZL201010543849.5</b>	ELECTRICAL MACHINE APPARATUS	Satoshi Sugita, Yasushi Misawa, Yu Qi Tang
<b>China Patent ZL201110030378.2</b>	METHOD OF CONTROLLING MOTOR AND MOTOR CONTROLLING SYSTEM	Yuji Ide, Michio Kitahara
<b>China Patent ZL201110038501.5</b>	MOTOR CONTROLLER	Yuji Ide
<b>China Patent ZL201110047070.9</b>	CONNECTING STRUCTURE FOR ELECTRIC CABLES AND ELECTRIC APPARATUS	Toshihito Miyashita, Hiroshi Hioki, Masakazu Chikyu
<b>China Patent ZL201110048588.4</b>	MOTOR CONTROL METHOD AND MOTOR CONTROL SYSTEM	Yuji Ide
<b>China Patent ZL201110057114.6</b>	MOTOR CONTROL METHOD	Yuji Ide , Co-invented with Utsunomiya University
<b>China Patent ZL201110282559.4</b>	METHOD AND SYSTEM FOR DETERMINING DETERIORATION OF PERMANENT MAGNETS OF ELECTRIC APPARATUS	Akihiko Takahashi, Koji Misawa, Manabu Horiuchi
<b>China Patent ZL201110301962.7</b>	MOVING MAGNETIC FIELD GENERATING APPARATUS	Satoshi Sugita, Yasushi Misawa, Yu Qi Tang, Shigenori Miyairi
<b>China Patent ZL201110302195.1</b>	LEAD WIRE ENGAGING STRUCTURE AND ELECTRIC APPARATUS	Yen Junchieh, Jiro Watanabe, Hiromitsu Kuribayashi, Shigekazu Mitomo
<b>China Patent ZL201110386635.6</b>	GENERATOR CORE	Toshihito Miyashita
<b>China Patent ZL201210136098.4</b>	MOTOR CONTROL SYSTEM AND METHOD OF DETECTING ELECTRICAL INSULATION DETERIORATION OF MOTOR	Yuji Ide
<b>Philippine Patent 1-2010-000403</b>	COUNTER-ROTATING AXIAL FLOW FAN	Yoshihiko Aizawa, Honami Osawa, Co-invented with the University of Tokyo, FUJITSU Japan
<b>Philippine Patent 1-2010-000404</b>	COUNTER-ROTATING AXIAL FLOW FAN	Yoshihiko Aizawa, Honami Osawa, Co-invented with the University of Tokyo, FUJITSU Japan
<b>Hong Kong Patent HK1154419</b>	MAGNETIC ABSOLUTE ENCODER	Shigeharu Kato, Kazuhiro Makiuchi, Shoji Ito, Toru Miyajima, Tomohito Yamazaki, Masato Matsuda, Toshiaki Ayuzawa