

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT6483157

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	CTRL-LABS CORPORATION	01/16/2020
RECEIVING PARTY DATA		
Name:	FACEBOOK TECHNOLOGIES, LLC	
Street Address:	1601 WILLOW ROAD	
City:	MENLO PARK	
State/Country:	CALIFORNIA	
Postal Code:	94025	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	16785680
CORRESPONDENCE DATA		
Fax Number:	(866)259-6138	
<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>		
Phone:	8019803399	
Email:	fb-docketing@fisherbroyles.com, Doreen.Shelton@fisherbroyles.com	
Correspondent Name:	FISHERBROYLES, LLP/FACEBOOK TECHNOLOGIES, LLC	
Address Line 1:	222 S. MAIN STREET, 5TH FLOOR	
Address Line 4:	SALT LAKE CITY, UTAH 84101	
ATTORNEY DOCKET NUMBER:	007726.1123U2	
NAME OF SUBMITTER:	ALAN MCBETH	
SIGNATURE:	/Alan McBeth/	
DATE SIGNED:	01/06/2021	
Total Attachments: 41		
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ASSIGNMENT OF PATENT RIGHTS

This Assignment of Patent Rights ("**Assignment**") is made and entered into on 16 January 2020 by and between:

CTRL-labs Corporation, a Delaware corporation having a place of business at 1001 6th Avenue, 5th Floor, New York, New York 10018 ("**Assignor**") and Facebook Technologies, LLC, a Delaware LLC, having a place of business at 1601 Willow Road, Menlo Park, California 94025 ("**Assignee**").

WHEREAS Assignor is the owner of all right, title, and interest in and to the patents and patent applications set forth on Exhibit A attached hereto ("**Assigned Patents**") and has agreed to assign and transfer to Assignee all right, title, and interest in and to the Assigned Patents;

WHEREAS Assignee is desirous of acquiring all right, title, and interest in and to the Assigned Patents.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby assigns to Assignee, or its designees, all right, title, and interest in and to all of the following (collectively, the "**Patent Rights**"): (a) the Assigned Patents, including all rights pursuant to 35 U.S.C. § 154; (b) all patents or patent applications (i) to which any of the foregoing claim priority and/or (ii) for which any of the foregoing forms a basis for priority; (c) any and all continuing, divisional, and continuation-in-part applications of any of the foregoing; (d) all requests for continuing examination, substitutions, reissues, extensions, renewals, and reexaminations of any of the foregoing; (e) all foreign patents, patent applications, and counterparts to any of the foregoing, including certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances; and (f) all rights to apply in any country for patents, certification of invention, utility models, industrial design protections, design patent protection, or other governmental grants or issuances corresponding to any of the foregoing throughout the world, including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding; (g) all inventions set forth in any of the Assigned Patents; (h) all past, present, and future causes of action (whether currently pending, filed, or otherwise) and other enforcement actions (including, without limitation, all rights to damages, injunctive remedies, and relief, and other remedies of any kind for past, current, and future infringement) and all rights to collect royalties (other than royalties or other payments due under agreements entered into by Assignor and third parties prior to the date of this Assignment), damages and profits, due or accrued, relating to any of the foregoing, including the right to sue and recover for, and the right to profits and damages, due or accrued, arising out of or in connection with, any and all past, present or future infringements or dilutions. The assignment of the Assigned Patents includes all documents related to the conception, diligence, and reduction to practice of the inventions disclosed in the Assigned Patents in a manner that satisfies the requirements of 35 U.S.C. § 112 for patent claims in the Assigned Patents and all domestic and international patent filing documents.

Assignor hereby authorizes and requests the Director of the U.S. Patent and Trademark Office, and any official of any other country whose duty it is to issue patents on the applications included in the Patent Rights, to issue all Letters Patent, patents, certificates of invention, utility models, or other governmental

grants or issuances for the inventions disclosed in the Assigned Patents in a manner that satisfies the requirements of 35 U.S.C. § 112 for the patent claims in the Assigned Patents to Assignee, its successors and assigns, as the assignee to the entire interest therein.

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

IN WITNESS WHEREOF, Assignor has caused this Assignment of Patent Rights to be executed by its duly authorized representative on the date set forth below.

ASSIGNOR: CTRL-labs Corporation

Signature: _____

Date: _____

Name: Michael L. Johnson

Title: Vice President & Assistant Secretary

IN WITNESS WHEREOF, Assignee has caused this Assignment of Patent Rights to be executed by its duly authorized representative on the date set forth below.

ASSIGNEE: Facebook Technologies, LLC

Signature: _____

Date: _____

Name: Allen Lo

Title: Vice President and Deputy General Counsel, Head of Intellectual Property, Facebook Technologies, LLC

Exhibit A

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	SYSTEMS AND METHODS FOR ISOLATING AND DETECTING SINGLE MOTOR UNITS BASED ON SURFACE NEUROMUSCULAR SIGNALS	US	62/898417	9/10/19					Wilson, Spencer
Pending	SYSTEMS, METHODS, AND APPARATUS FOR TYPING USING NEUROMUSCULAR SIGNALS	US	62/897592	9/9/19					Berenzweig, Adam; Seely, Jeffrey Scott; Anderson, Christopher
Pending	SYSTEMS, METHODS AND INTERFACES FOR PERFORMING TEXT INPUT BASED ON NEUROMUSCULAR CONTROL	US	62/897483	9/9/19					Rubin, Ran; Reisman, Jason; Wetmore, Daniel
Pending	SYSTEMS AND METHODS FOR PERSONALIZING INFERENCE MODELS BASED ON NEUROMUSCULAR DATA	US	62/895894	9/4/19					Guo, Ning; Hernández, Carlos Xavier
Pending	SYSTEM AND APPARATUS FOR MULTIMODAL CONNECTED DEVICE CONTROL BASED ON NEUROMUSCULAR SIGNALS	US	62/866505	6/25/19					Reisman, Jason; Cochran, Robert; Brown, Naor; Bartov, Nitzan; Duyan, Joshua; Wetmore, Daniel
Pending	UNSUPERVISED DISCRETE EVENT DETECTION BASED ON NEUROMUSCULAR DATA	US	62/895782	9/4/19					Barachant, Alexandre

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REEL: 054913 FRAME: 0438

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Granted	EXPANDABLE ARMBAND DEVICE	US	29/490953	5/15/14			D756359	5/17/16	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	PORTION OF AN EXPANDABLE ARMBAND	US	29/504607	10/7/14			D742272	11/3/15	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	EXPANDABLE ARMBAND	US	29/490952	5/15/14			D717685	11/18/14	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	EXPANDABLE ARMBAND	Singapore	D201413201	11/4/14		1/7/15	D201413201	11/4/14	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	AN EXPANDABLE ARMBAND	Singapore	D20141319J	11/4/14		1/7/15	D20141319J	11/4/14	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	BRAIDED WRIST DECLINING	Russian Federation	2014504355	10/31/14		9/16/15	95434	8/19/15	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	ELECTROMYOGRAM MEASURING ARMBAND	Korea, Republic of	30-2014-0055020-M002	11/14/14		4/27/16	30-0851352-0002	4/20/16	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	ELECTROMYOGRAM MEASURING ARMBAND	Korea, Republic of	30-2014-0055020-M001	11/14/14		4/27/16	30-0851352-0001	4/20/16	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	PORTION OF AN EXPANDABLE ARMBAND	Japan	2014-025228	11/12/14		11/16/15	1538010	10/16/15	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	AN EXPANDABLE ARMBAND	Japan	2014-025230	11/12/14		8/31/15	1532485	7/31/15	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	EXPANDABLE ARMBAND FOR GESTURE CONTROL	India	267323	11/11/14		6/3/16	267323	11/11/14	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.

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REEL: 054913 FRAME: 0439

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Granted	EXPANDABLE ARMBAND	European Community	002572180-0002	11/5/14		12/17/14	002572180-0002	11/5/14	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	EXPANDABLE ARMBAND	European Community	002572180-0001	11/5/14		12/17/14	002572180-0001	11/5/14	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	EXTENSIBLE ARM RING	China (People's Republic)	201430439319.5	11/10/14		6/3/15	201430439319.5	6/3/15	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	EXPANDABLE ARMBAND	Canada	159355	10/30/14			159355	6/5/15	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	EXPANDABLE ARMBAND	Canada	159354	10/30/14			159354	6/5/15	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	SETTING APPLIED IN CLAMP	Brazil	BR302014005645	11/11/14		10/27/15	BR302014005645	7/26/16	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	EXPANDABLE ARMBAND	Australia	201510040	1/7/15			AU359940	1/15/15	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Granted	EXPANDABLE ARMBAND	Australia	201415639	11/5/14			AU359916	1/15/15	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.; Mosna, Kirk A.
Pending	SYSTEMS AND METHODS FOR A DEEP SPIKE DECODER	US	62/887528	8/15/19					Adamey, Emrali; Ziyace, Tarin; Alapati, Nishanth; Ye, Jun; Wetmore, Daniel
Pending	SYSTEMS AND METHODS FOR A DEEP SPIKE DECODER	US	62/887521	8/15/19					Adamey, Emrali; Ziyace, Tarin; Alapati, Nishanth; Ye, Jun; Wetmore, Daniel
Pending	SYSTEMS AND METHODS FOR A DEEP SPIKE DECODER	US	62/887515	8/15/19					Adamey, Emrali; Ziyace, Tarin; Alapati, Nishanth;

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REEL: 054913 FRAME: 0440

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
									Ye, Jun; Wetmore, Daniel
Pending	SYSTEMS AND METHODS FOR A DEEP SPIKE DECODER	US	62/887507	8/15/19					Adamey, Emrah; Ziyace, Tarin; Alapati, Nishanth; Ye, Jun; Wetmore, Daniel
Pending	SYSTEMS AND METHODS FOR A DEEP SPIKE DECODER	US	62/887502	8/15/19					Adamey, Emrah; Ziyace, Tarin; Alapati, Nishanth; Ye, Jun; Wetmore, Daniel
Pending	SYSTEMS AND METHODS FOR A DEEP SPIKE DECODER	US	62/887496	8/15/19					Adamey, Emrah; Ziyace, Tarin; Alapati, Nishanth; Ye, Jun; Wetmore, Daniel
Pending	SYSTEMS AND METHODS FOR A DEEP SPIKE DECODER	US	62/887485	8/15/19					Adamey, Emrah; Ziyace, Tarin; Alapati, Nishanth; Ye, Jun; Wetmore, Daniel
Abandoned	SYSTEMS, DEVICES, AND METHODS FOR SELECTING BETWEEN MULTIPLE WIRELESS CONNECTIONS	US	14/658552	3/16/15	US-2015-0261306-A1	9/17/15			Lake, Stephen
Expired	SYSTEMS, DEVICES, AND METHODS FOR SELECTING BETWEEN MULTIPLE WIRELESS CONNECTIONS	US	61/954379	3/17/14					Lake, Stephen
Abandoned	SYSTEMS, ARTICLES AND METHODS FOR SIGNAL ROUTING IN WEARABLE ELECTRONIC DEVICES	US	14/461044	8/15/14	US-2015-0051470-A1	2/19/15			Bailey, Matthew; Lake, Stephen; Grant, Aaron

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REEL: 054913 FRAME: 0441

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Expired	SYSTEMS, ARTICLES AND METHODS FOR SIGNAL ROUTING IN WEARABLE ELECTRONIC DEVICES	US	61/866960	8/16/13					Bailey, Matthew; Lake, Stephen; Grant, Aaron
Abandoned	SYSTEMS, DEVICES, AND METHODS THAT ESTABLISH PROXIMITY-BASED WIRELESS CONNECTIONS	US	14/679850	4/6/15	US-2015-0296553-A1	10/15/15			DiFranco, Mark P.; Chung, Daniel
Expired	SYSTEMS, DEVICES, AND METHODS THAT ESTABLISH PROXIMITY-BASED WIRELESS CONNECTIONS	US	61/978608	4/11/14					DiFranco, Mark P.; Chung, Daniel
Published	SYSTEMS, DEVICES, AND METHODS THAT ESTABLISH PROXIMITY-BASED WIRELESS CONNECTIONS	Canada	2887165	4/7/15		10/11/15			DiFranco, Mark P.; Chung, Daniel
Granted	SYSTEMS, METHODS, AND COMPUTER PROGRAM PRODUCTS FOR INTERACTING WITH ELECTRONICALLY DISPLAYED PRESENTATION MATERIALS	US	15/133091	4/19/16	US-2016-0313899-A1	10/27/16	10078435	9/18/18	Noel, Elliott W. G.

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Expired	SYSTEMS, METHODS, AND COMPUTER PROGRAM PRODUCTS FOR INTERACTING WITH ELECTRONICALLY DISPLAYED PRESENTATION MATERIALS	US	62/152151	4/24/15					Noel, Elliott W. G.
National Phase	SYSTEMS, ARTICLES, AND METHODS FOR WEARABLE HUMAN-ELECTRONICS INTERFACE DEVICES	Patent Cooperation Treaty	PCT/US2014/057029	9/23/14	WO2015/199747	12/30/15			Chapeskie, Jake; Lake, Stephen
Granted	SYSTEMS, ARTICLES, AND METHODS FOR WEARABLE HUMAN-ELECTRONICS INTERFACE DEVICES	US	14/743536	6/18/15	US-2015-0370326-A1	12/24/15	10216274	2/26/19	Chapeskie, Jake; Lake, Stephen
Expired	SYSTEMS, ARTICLES, AND METHODS FOR WEARABLE HUMAN-ELECTRONICS INTERFACE DEVICES	US	62/015937	6/23/14					Lake, Stephen
Published	SYSTEMS, DEVICES, AND METHODS FOR GESTURE IDENTIFICATION	US	15/852196	12/22/17	US-2018-0120948-A1	5/3/18			Aleem, Idris S.; Ataee, Pedram
Granted	SYSTEMS, DEVICES, AND METHODS FOR GESTURE IDENTIFICATION	US	14/737081	6/11/15	US-2015-0370333-A1	12/24/15	9880632	1/30/18	Aleem, Idris S.; Ataee, Pedram
Expired	SYSTEMS, DEVICES, AND METHODS FOR GESTURE IDENTIFICATION	US	62/014605	6/19/14					Ataee, Pedram; Aleem, Idris S.

PATENT

REEL: 054913 FRAME: 0443

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Granted	SYSTEMS, DEVICES, AND METHODS FOR WEARABLE ELECTRONIC DEVICES AS STATE MACHINES	US	14/669878	3/26/15	US-2015-0277575-A1	10/1/15	10199008	2/5/19	Aleem, Idris S.; Atace, Pedram; Lake, Stephen
Expired	SYSTEMS, DEVICES, AND METHODS FOR WEARABLE ELECTRONIC DEVICES AS STATE MACHINES	US	61/971346	3/27/14					Atace, Pedram; Lake, Stephen; Aleem, Idris S.
National Phase	SYSTEMS, ARTICLES, AND METHODS FOR ELASTIC ELECTRICAL CABLES AND WEARABLE ELECTRONIC DEVICES EMPLOYING SAME	Patent Cooperation Treaty	PCT/US2015/015675	2/12/15	WO2015/123445	8/20/15			Bailey, Matthew; Orzel, Stephen E.
Granted	SYSTEMS, ARTICLES, AND METHODS FOR ELASTIC ELECTRICAL CABLES AND WEARABLE ELECTRONIC DEVICES EMPLOYING SAME	US	14/621044	2/12/15	US-2015-0234426-A1	8/20/15	9600030	3/21/17	Bailey, Matthew; Orzel, Stephen E.
Expired	SYSTEMS, ARTICLES, AND METHODS FOR ELASTIC ELECTRICAL CABLES AND WEARABLE ELECTRONIC DEVICES EMPLOYING SAME	US	62/031651	7/31/14					Bailey, Matthew; Orzel, Stephen E.
Expired	SYSTEMS, ARTICLES, AND METHODS FOR ELASTIC ELECTRICAL CABLES AND WEARABLE ELECTRONIC DEVICES EMPLOYING SAME	US	61/940048	2/14/14					Bailey, Matthew

PATENT

REEL: 054913 FRAME: 0444

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Published	SYSTEMS, ARTICLES, AND METHODS FOR ELASTIC ELECTRICAL CABLES AND WEARABLE ELECTRONIC DEVICES EMPLOYING SAME	Korea, Republic of	10-2016-7024667	2/12/15	10-2016-0121552	10/19/16			Bailey, Matthew; Orzel, Stephen E.
Abandoned	SYSTEMS, ARTICLES, AND METHODS FOR ELASTIC ELECTRICAL CABLES AND WEARABLE ELECTRONIC DEVICES EMPLOYING SAME	Japan	2016-550854	2/12/15					Bailey, Matthew; Orzel, Stephen E.
Abandoned copy of PCT/US201 5/015675 provided (WGS Ref. No. C1527.700 58WO00)	SYSTEMS, ARTICLES, AND METHODS FOR ELASTIC ELECTRICAL CABLES AND WEARABLE ELECTRONIC DEVICES EMPLOYING SAME	European Patent Convention	15748851.1	2/12/15	3104737	12/21/16			Bailey, Matthew; Orzel, Stephen E.
Abandoned	SYSTEMS, ARTICLES, AND METHODS FOR ELASTIC ELECTRICAL CABLES AND WEARABLE ELECTRONIC DEVICES EMPLOYING SAME	China (People's Republic)	2015800152 4	2/12/15	10610250 4A	11/9/16			Bailey, Matthew; Orzel, Stephen E.

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending copy of PCT/US201 5/015675 provided (WGS Ref. No. C1527.700 58WO00)	SYSTEMS, ARTICLES, AND METHODS FOR ELASTIC ELECTRICAL CABLES AND WEARABLE ELECTRONIC DEVICES EMPLOYING SAME	Canada	2939644	2/12/15					Bailey, Matthew; Orzel, Stephen E.
Abandoned	SYSTEMS, ARTICLES, AND METHODS FOR ELECTROMYOGRAPHY SENSORS	Patent Cooperation Treaty	PCT/US201 4/067443	11/25/14	WO2015/ 081113	6/4/15			Morun, Cezar; Lake, Stephen
Pending	SYSTEMS, ARTICLES, AND METHODS FOR ELECTROMYOGRAPHY SENSORS	US	16/432734	6/5/19					Morun, Cezar; Lake, Stephen
Published	SYSTEMS, ARTICLES, AND METHODS FOR ELECTROMYOGRAPHY SENSORS	US	16/292609	3/5/19	US-2019- 0192037- A1	6/27/19			Morun, Cezar; Lake, Stephen
Granted	SYSTEMS, ARTICLES, AND METHODS FOR ELECTROMYOGRAPHY SENSORS	US	16/057573	8/7/18	US-2018- 0344195- A1	12/6/18	10362958	7/30/19	Morun, Cezar; Lake, Stephen
Granted	SYSTEMS, ARTICLES, AND METHODS FOR ELECTROMYOGRAPHY SENSORS	US	15/799628	10/31/17	US-2018- 0064363- A1	3/8/18	10251577	4/9/19	Morun, Cezar; Lake, Stephen
Granted	SYSTEMS, ARTICLES, AND METHODS FOR ELECTROMYOGRAPHY SENSORS	US	14/553657	11/25/14	US-2015- 0148641- A1	5/28/15	10188309	1/29/19	Morun, Cezar; Lake, Stephen

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REEL: 054913 FRAME: 0446

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Expired	SYSTEMS, ARTICLES, AND METHODS FOR ELECTROMYOGRAPHY SENSORS	US	61/909786	11/27/13					Morun, Cezar; Lake, Stephen
Published	SYSTEMS, ARTICLES AND METHODS FOR WEARABLE ELECTRONIC DEVICES EMPLOYING CONTACT SENSORS	US	15/882858	1/29/18	US-2018-0150033-A1	5/31/18			Lake, Stephen; Bailey, Matthew
Abandoned	SYSTEMS, ARTICLES AND METHODS FOR WEARABLE ELECTRONIC DEVICES EMPLOYING CONTACT SENSORS	US	14/505836	10/3/14	US-2015-0124566-A1	5/7/15			Lake, Stephen; Bailey, Matthew
Expired	SYSTEMS, ARTICLES AND METHODS FOR WEARABLE ELECTRONIC DEVICES EMPLOYING CAPACITIVE SENSORS	US	61/897097	10/29/13					Lake, Stephen; Bailey, Matthew
Expired	SYSTEMS, ARTICLES AND METHODS FOR WRISTWATCHES WITH SENSING CAPABILITY	US	61/891694	10/16/13					Lake, Stephen
Expired	SYSTEMS, ARTICLES AND METHODS FOR WRISTWATCHES WITH SENSING CAPABILITY	US	61/887812	10/7/13					Lake, Stephen
Expired	SYSTEMS, ARTICLES AND METHODS FOR SMART WATCHES	US	61/887193	10/4/13					Lake, Stephen

PATENT

REEL: 054913 FRAME: 0447

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Granted	SYSTEMS, ARTICLES, AND METHODS FOR GESTURE IDENTIFICATION IN WEARABLE ELECTROMYOGRAPHY DEVICES	US	14/520081	10/21/14	US-2015-0109202-A1	4/23/15	9389694	7/12/16	Ataee, Pedram; Aleem, Idris S.; Bailey, Matthew
Expired	SYSTEMS, ARTICLES, AND METHODS FOR GESTURE IDENTIFICATION IN WEARABLE ELECTROMYOGRAPHY DEVICES	US	61/894263	10/22/13					Ataee, Pedram; Aleem, Idris S.; Bailey, Matthew
Granted	SYSTEMS, ARTICLES, AND METHODS FOR GESTURE IDENTIFICATION IN WEARABLE ELECTROMYOGRAPHY DEVICES	US	14/494274	9/23/14	US-2015-0084860-A1	3/26/15	9483123	11/1/16	Aleem, Idris S.; Ataee, Pedram; Bailey, Matthew
Expired	SYSTEMS, ARTICLES, AND METHODS FOR GESTURE IDENTIFICATION IN WEARABLE ELECTROMYOGRAPHY DEVICES	US	61/881064	9/23/13					Aleem, Idris S.; Ataee, Pedram; Bailey, Matthew
Granted	SYSTEMS, ARTICLES, AND METHODS FOR GESTURE IDENTIFICATION IN WEARABLE ELECTROMYOGRAPHY DEVICES	US	14/567826	12/11/14	US-2015-0169074-A1	6/18/15	9367139	6/14/16	Ataee, Pedram; Aleem, Idris S.; Bailey, Matthew

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REEL: 054913 FRAME: 0448

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Expired	SYSTEMS, ARTICLES, AND METHODS FOR GESTURE IDENTIFICATION IN WEARABLE ELECTROMYOGRAPHY DEVICES	US	61/915338	12/12/13					Ataee, Pedram; Aleem, Idris S.; Bailey, Matthew
Granted	SYSTEMS, ARTICLES, AND METHODS FOR ELECTROMYOGRAPHY-BASED HUMAN-ELECTRONICS INTERFACES	US	14/476093	9/3/14	US-2015-0070270-A1	3/12/15	9372535	6/21/16	Bailey, Matthew; Lake, Stephen; Grant, Aaron
Expired	SYSTEMS, ARTICLES, AND METHODS FOR ELECTROMYOGRAPHY-BASED HUMAN-ELECTRONICS INTERFACES	US	61/874846	9/6/13					Bailey, Matthew; Lake, Stephen; Grant, Aaron
National Phase	SYSTEMS, ARTICLES, AND METHODS FOR HUMAN-ELECTRONICS INTERFACES	Patent Cooperation Treaty	PCT/US2014/052143	8/21/14	WO2015/027089	2/26/15			Lake, Stephen; Bailey, Matthew; Grant, Aaron
Published	SYSTEMS, ARTICLES, AND METHODS FOR HUMAN-ELECTRONICS INTERFACES	US	14/465194	8/21/14	US-2015-0057770-A1	2/26/15			Bailey, Matthew; Lake, Stephen; Grant, Aaron
Expired	SYSTEMS, ARTICLES, AND METHODS FOR HUMAN-ELECTRONICS INTERFACES	US	61/869526	8/23/13					Bailey, Matthew; Lake, Stephen; Grant, Aaron

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending copy of PCT/US201 4/052143 provided (WGS Ref. No. C1527.700 51WO00)	SYSTEMS, ARTICLES, AND METHODS FOR HUMAN- ELECTRONICS INTERFACES	Canada	2921954	8/21/14					Bailey, Matthew; Lake, Stephen; Grant, Aaron
Abandoned	SYSTEMS, ARTICLES AND METHODS FOR WEARABLE ELECTRONIC DEVICES THAT ACCOMMODATE DIFFERENT USER FORMS	Patent Cooperation Treaty	PCT/US201 4/037863	5/13/14	WO2014/ 186370	11/20/14			Bailey, Matthew
Granted	SYSTEMS, ARTICLES AND METHODS FOR WEARABLE ELECTRONIC DEVICES THAT ACCOMMODATE DIFFERENT USER FORMS	US	14/276575	5/13/14	US-2014- 0334083- A1	11/13/14	10152082	12/11/18	Bailey, Matthew
Expired	SYSTEMS, ARTICLES AND METHODS FOR WEARABLE ELECTRONIC DEVICES THAT ACCOMMODATE DIFFERENT USER FORMS	US	61/860063	7/30/13					Bailey, Matthew
Expired	APPARATUS AND METHOD FOR POSITIONING SENSORS	US	61/822740	5/13/13					Bailey, Matthew; Grant, Aaron; Lake, Stephen

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REEL: 054913 FRAME: 0450

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Granted	SYSTEMS, ARTICLES AND METHODS FOR STRAIN MITIGATION IN WEARABLE ELECTRONIC DEVICES	US	14/335688	7/18/14	US-2015-0025355-A1	1/22/15	9408316	8/2/16	Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.
Expired	SYSTEMS, ARTICLES AND METHODS FOR WEARABLE ELECTRONIC DEVICES	US	61/857105	7/22/13					Bailey, Matthew; Orzel, Stephen E.; Hills, Graham T.
Allowed	WEARABLE MUSCLE INTERFACE SYSTEMS, DEVICES AND METHODS THAT INTERACT WITH CONTENT DISPLAYED ON AN ELECTRONIC DISPLAY	US	14/155107	1/14/14	US-2014-0198035-A1	7/17/14			Bailey, Matthew; Grant, Aaron; Lake, Stephen
Abandoned	MUSCLE INTERFACE DEVICE AND METHOD FOR INTERACTING WITH CONTENT DISPLAYED ON WEARABLE HEAD MOUNTED DISPLAYS	US	14/155087	1/14/14	US-2014-0198034-A1	7/17/14			Bailey, Matthew; Grant, Aaron; Lake, Stephen
Expired	MUSCLE INTERFACE DEVICE AND METHOD FOR INTERACTING WITH CONTENT DISPLAYED ON WEARABLE HEAD MOUNTED DISPLAYS	US	61/752226	1/14/13					Bailey, Matthew; Grant, Aaron; Lake, Stephen
National Phase	METHODS AND DEVICES THAT COMBINE MUSCLE ACTIVITY SENSOR SIGNALS AND INERTIAL SENSOR SIGNALS FOR GESTURE-BASED CONTROL	Patent Cooperation Treaty	PCT/US2014/017799	2/21/14	WO2014/130871	8/28/14			Lake, Stephen; Bailey, Matthew; Grant, Aaron

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REEL: 054913 FRAME: 0451

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Abandoned	METHODS AND DEVICES FOR COMBINING MUSCLE ACTIVITY SENSOR SIGNALS AND INERTIAL SENSOR SIGNALS FOR GESTURE-BASED CONTROL	US	14/186889	2/21/14	US-2014-0240103-A1	8/28/14			Lake, Stephen; Bailey, Matthew; Grant, Aaron
Granted	METHOD AND APPARATUS FOR ANALYZING CAPACITIVE EMG AND IMU SENSOR SIGNALS FOR GESTURE CONTROL	US	14/186878	2/21/14	US-2014-0240223-A1	8/28/14	9299248	3/29/16	Lake, Stephen; Bailey, Matthew; Grant, Aaron
Expired	METHOD AND APPARATUS FOR ANALYZING CAPACITIVE EMG AND IMU SENSOR SIGNALS FOR GESTURE CONTROL	US	61/768322	2/22/13					Lake, Stephen; Bailey, Matthew; Grant, Aaron
Published	METHODS AND DEVICES THAT COMBINE MUSCLE ACTIVITY SENSOR SIGNALS AND INERTIAL SENSOR SIGNALS FOR GESTURE-BASED CONTROL	Korea, Republic of	10-2015-7024968	2/21/14	10-2015-0123254	11/3/15			Lake, Stephen; Bailey, Matthew; Grant, Aaron
Pending	METHODS AND DEVICES THAT COMBINE MUSCLE ACTIVITY SENSOR SIGNALS AND INERTIAL SENSOR SIGNALS FOR GESTURE-BASED CONTROL	Japan	2018-215132	2/21/14					Lake, Stephen; Bailey, Matthew; Grant, Aaron

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REEL: 054913 FRAME: 0452

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending copy of PCT/US201 4/017799 provided (WGS Ref. No. C1527.700 47WO00)	METHODS AND DEVICES THAT COMBINE MUSCLE ACTIVITY SENSOR SIGNALS AND INERTIAL SENSOR SIGNALS FOR GESTURE-BASED CONTROL	Japan	2015- 559017	2/21/14					Lake, Stephen; Bailey, Matthew; Grant, Aaron
Published copy of PCT/US201 4/017799 provided (WGS Ref. No. C1527.700 47WO00)	METHODS AND DEVICES THAT COMBINE MUSCLE ACTIVITY SENSOR SIGNALS AND INERTIAL SENSOR SIGNALS FOR GESTURE-BASED CONTROL	European Patent Convention	14753949,8	2/21/14	2959394	12/30/15			Lake, Stephen; Bailey, Matthew; Grant, Aaron
Abandoned	METHODS AND DEVICES THAT COMBINE MUSCLE ACTIVITY SENSOR SIGNALS AND INERTIAL SENSOR SIGNALS FOR GESTURE-BASED CONTROL	China (People's Republic)	2014800108 62	2/21/14	10519057 8A	12/23/15			Lake, Stephen; Bailey, Matthew; Grant, Aaron

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending copy of PCT/US201 4/017799 provided (WGS Ref. No. C1527.700 47WO00)	METHODS AND DEVICES THAT COMBINE MUSCLE ACTIVITY SENSOR SIGNALS AND INERTIAL SENSOR SIGNALS FOR GESTURE-BASED CONTROL	Canada	2902045	2/21/14					Lake, Stephen; Bailey, Matthew; Grant, Aaron
Pending	SYSTEMS, ARTICLES, AND METHODS FOR CAPACITIVE ELECTROMYOGRAPHY SENSORS	US	16/550905	8/26/19					Morun, Cezar; Lake, Stephen
Pending	SYSTEMS, ARTICLES, AND METHODS FOR CAPACITIVE ELECTROMYOGRAPHY SENSORS	US	16/437351	6/11/19					Morun, Cezar; Lake, Stephen
Pending	SYSTEMS, ARTICLES, AND METHODS FOR CAPACITIVE ELECTROMYOGRAPHY SENSORS	US	16/430299	6/3/19					Morun, Cezar; Lake, Stephen
Granted	SYSTEMS, ARTICLES, AND METHODS FOR CAPACITIVE ELECTROMYOGRAPHY SENSORS	US	16/137960	9/21/18	US-2019- 0033967- A1	1/31/19	10429928	10/1/19	Morun, Cezar; Lake, Stephen
Granted	SYSTEMS, ARTICLES, AND METHODS FOR CAPACITIVE ELECTROMYOGRAPHY SENSORS	US	16/023300	6/29/18	US-2018- 0321746- A1	11/8/18	10310601	6/4/19	Morun, Cezar; Lake, Stephen
Granted	SYSTEMS, ARTICLES, AND METHODS FOR CAPACITIVE ELECTROMYOGRAPHY SENSORS	US	16/023276	6/29/18	US-2018- 0321745- A1	11/8/18	10331210	6/25/19	Morun, Cezar; Lake, Stephen

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REEL: 054913 FRAME: 0454

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Granted	SYSTEMS, ARTICLES, AND METHODS FOR CAPACITIVE ELECTROMYOGRAPHY SENSORS	US	15/799621	10/31/17	US-2018-0067553-A1	3/8/18	10101809	10/16/18	Morun, Cezar; Lake, Stephen
Granted	SYSTEMS, ARTICLES, AND METHODS FOR CAPACITIVE ELECTROMYOGRAPHY SENSORS	US	14/539773	11/12/14	US-2015-0141784-A1	5/21/15	10042422	8/7/18	Morun, Cezar; Lake, Stephen
Expired	SYSTEMS, ARTICLES, AND METHODS FOR CAPACITIVE ELECTROMYOGRAPHY SENSORS	US	61/903238	11/12/13					Morun, Cezar; Lake, Stephen
Pending	METHODS AND APPARATUS FOR DETECTING AND COMPENSATING FOR MOTION ARTIFACTS IN A MULTIPLE ELECTRODE WEARABLE SYSTEM	US	62/841061	4/30/19					Moschella, Anthony D.; Wetmore, Daniel
Pending	HANDSTATE REPRESENTATION MODEL ESTIMATES USING FINITE DIFFERENCE LOSS PENALTIES	US	62/841156	4/30/19					Hernández, Carlos Xavier; Wetmore, Daniel
Pending	HANDSTATE REPRESENTATION MODEL ESTIMATES USING TOTAL VARIATION LOSS PENALTIES	US	62/841147	4/30/19					Hernández, Carlos Xavier; Wetmore, Daniel

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REEL: 054913 FRAME: 0455

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	METHOD AND APPARATUS FOR INTEGRATING NEUROMUSCULAR AND TOUCHSCREEN INPUT FOR MACHINE CONTROL	US	62/830194	4/5/19					Reisman, Jason; Wetmore, Daniel
Pending	SYSTEM, APPARATUS, AND METHODS FOR INTERACTING WITH MULTIMODAL CONNECTED DEVICES BASED AT LEAST IN PART ON NEUROMUSCULAR SIGNALS	US	62/895888	9/4/19					Reisman, Jason; Cochran, Robert; Brown, Naor; Bartov, Nitzan; Duyan, Joshua; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR ON-LINE TRAINING OF USER SPECIFIC MACHINE LEARNING MODELS FOR A HUMAN-COMPUTER INTERFACE	US	62/840803	4/30/19					Reisman, Jason; Rubin, Ran; Singhal, Tanay; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR ON-LINE TRAINING OF USER SPECIFIC MACHINE LEARNING MODELS FOR A HUMAN-COMPUTER INTERFACE	US	62/826493	3/29/19					Rubin, Ran; Reisman, Jason; Singhal, Tanay; Wetmore, Daniel
Pending	METHOD AND APPARATUS FOR LOW LATENCY HAND POSITION INFERENCE BASED ON NEUROMUSCULAR DATA	US	62/841054	4/30/19					Hussami, Nadine; Kaifosh, Patrick; Barachant, Alexandre; Wetmore, Daniel

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Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	METHOD AND APPARATUS FOR LOW LATENCY HAND POSITION INFERENCE BASED ON NEUROMUSCULAR DATA	US	62/826516	3/29/19					Hussami, Nadine; Kaifosh, Patrick; Barachant, Alexandre; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR POSE AND FORCE CONTROL VIA A WEARABLE HUMAN COMPUTER INTERFACE	US	62/841107	4/30/19					Anderson, Christopher; Berenzweig, Adam; Draves, Scott; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR DISCRETE EVENT DETECTION VIA A WEARABLE HUMAN COMPUTER INTERFACE	US	62/841100	4/30/19					Anderson, Christopher; Berenzweig, Adam; Draves, Scott; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR USER INTERFACE STATE TRANSITIONING VIA A WEARABLE HUMAN COMPUTER INTERFACE	US	62/841069	4/30/19					Anderson, Christopher; Berenzweig, Adam; Draves, Scott; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR MULTI-STATE USER INTERFACE NAVIGATION VIA A WEARABLE HUMAN COMPUTER INTERFACE	US	62/840966	4/30/19					Anderson, Christopher; Berenzweig, Adam; Draves, Scott; Wetmore, Daniel

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REEL: 054913 FRAME: 0457

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	METHODS AND APPARATUS FOR ASSISTED USER INTERFACE NAVIGATION VIA A WEARABLE HUMAN COMPUTER INTERFACE	US	62/840980	4/30/19					Anderson, Christopher; Berenzweig, Adam; Draves, Scott; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR SEQUENTIAL USER INTERFACE NAVIGATION VIA A WEARABLE HUMAN COMPUTER INTERFACE	US	62/840947	4/30/19					Anderson, Christopher; Berenzweig, Adam; Draves, Scott; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR WEB NAVIGATION VIA A WEARABLE HUMAN COMPUTER INTERFACE	US	62/826332	3/29/19					Anderson, Christopher; Berenzweig, Adam; Draves, Scott; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR PRODUCTION OF USER PROFILES AND PERSONALIZED MODELS FOR HUMAN COMPUTER INTERFACES	US	62/826308	3/29/19					Kaifosh, Patrick; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR UNSUPERVISED AND SELF-SUPERVISED TRAINING FOR THE GESTURE DISCRETE EVENT DETECTION AND CLASSIFICATION	US	62/826478	3/29/19					Barachant, Alexandre; Wetmore, Daniel

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REEL: 054913 FRAME: 0458

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	METHODS AND APPARATUS FOR REDUCING ELECTROMAGNETIC INTERFERENCE IN EXTENDED REALITY ENVIRONMENTS	US	62/826574	3/29/19					Guo, Ning; Yenbarwar, Akshay; Reid, Jonathan; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR A WEARABLE CONTROL DEVICE TO FACILITATE PERFORMANCE OF MANUFACTURING TASKS	US	62/811888	2/28/19					Moschella, Anthony D.
Pending	METHODS AND APPARATUS FOR AUTOCALIBRATION OF A WEARABLE SURFACE EMG SENSOR SYSTEM	US	62/771957	11/27/18					Barachant, Alexandre
Pending	METHODS AND APPARATUS FOR UNSUPERVISED MACHINE LEARNING FOR CLASSIFICATION OF GESTURES AND ESTIMATION OF APPLIED FORCES	Patent Cooperation Treaty	PCT/US2019/020065	2/28/19					Barachant, Alexandre
Pending	METHODS AND APPARATUS FOR UNSUPERVISED ONE-SHOT MACHINE LEARNING FOR CLASSIFICATION OF HUMAN GESTURES AND ESTIMATION OF APPLIED FORCES	US	16/288880	2/28/19					Barachant, Alexandre

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REEL: 054913 FRAME: 0459

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	REAL-TIME SPIKE DETECTION AND IDENTIFICATION	Patent Cooperation Treaty	PCT/US2019/046351	8/13/19					Kaifosh, Patrick; Barachant, Alexandre; Mandel, Michael Isaac; Wetmore, Daniel
Pending	REAL-TIME SPIKE DETECTION AND IDENTIFICATION	US	16/539755	8/13/19					Kaifosh, Patrick; Barachant, Alexandre; Mandel, Michael Isaac; Wetmore, Daniel
Expired	REAL-TIME SPIKE DETECTION AND IDENTIFICATION	US	62/718337	8/13/18					Kaifosh, Patrick; Barachant, Alexandre; Mandel, Michael Isaac
Pending	USE OF NEUROMUSCULAR SIGNALS TO PROVIDE ENHANCED INTERACTIONS WITH PHYSICAL OBJECTS IN AN AUGMENTED REALITY ENVIRONMENT	US	62/741781	10/5/18					Osborn, Christopher; Remaley, Mason; Awad, Lana; Berenzweig, Adam; Susu-Mago, Arielle; Astolfi, Michael
Pending	NEUROMUSCULAR CONTROL OF AN AUGMENTED REALITY SYSTEM	US	62/734145	9/20/18					Stone, Jasmine; Awad, Lana; Mao, Qiushi; Osborn, Christopher
Pending	CAMERA-GUIDED INTERPRETATION OF NEUROMUSCULAR SIGNALS	Patent Cooperation Treaty	PCT/US2019/049094	8/30/19					Berenzweig, Adam; Reardon, Thomas; Osborn, Christopher; Kaifosh, Patrick; Jurman, Brett; Wetmore, Daniel
Pending	CAMERA-GUIDED INTERPRETATION OF NEUROMUSCULAR SIGNALS	US	16/557427	8/30/19					Berenzweig, Adam; Reardon, Thomas; Osborn, Christopher; Kaifosh, Patrick; Jurman, Brett; Wetmore, Daniel
Pending	CAMERA-GUIDED INTERPRETATION OF NEUROMUSCULAR SIGNALS	US	16/557383	8/30/19					Berenzweig, Adam; Reardon, Thomas; Osborn, Christopher; Kaifosh, Patrick; Jurman, Brett; Wetmore, Daniel

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REEL: 054913 FRAME: 0460

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	CAMERA-GUIDED INTERPRETATION OF NEUROMUSCULAR SIGNALS	US	16/557342	8/30/19					Berenzweig, Adam; Reardon, Thomas; Osborn, Christopher; Kaifosh, Patrick; Jurman, Brett; Wetmore, Daniel
Pending	CAMERA GUIDED INTERPRETATION OF NEUROMUSCULAR SIGNALS	US	62/737753	9/27/18					Berenzweig, Adam; Reardon, Thomas; Osborn, Christopher; Kaifosh, Patrick; Jurman, Brett
Pending	CAMERA GUIDED INTERPRETATION OF NEUROMUSCULAR SIGNALS	US	62/726159	8/31/18					Berenzweig, Adam; Reardon, Thomas; Osborn, Christopher; Kaifosh, Patrick; Jurman, Brett
Pending	NEUROMUSCULAR CONTROL OF OBJECTS IN AN ENVIRONMENT	US	62/736929	9/26/18					Mao, Qiushi; Stone, Jasmine; Berenzweig, Adam; Kaifosh, Patrick; DiMaio, Robert John
Pending	FEEDBACK OF NEUROMUSCULAR ACTIVATION USING AUGMENTED REALITY	US	62/768741	11/16/18					Kaifosh, Patrick; Barachant, Alexandre; Remaley, Mason; Kilian, Juliet; Hong, Kirak; Danielson, Nathan; Mao, Qiushi
Pending	NEUROMUSCULAR TEXT ENTRY, WRITING AND DRAWING IN AUGMENTED REALITY SYSTEMS	US	62/734138	9/20/18					Berenzweig, Adam
Pending	SYSTEMS AND METHODS FOR TEXT INPUT USING NEUROMUSCULAR INFORMATION	US	15/974454	5/8/18					Berenzweig, Adam; Du, Alan Huan; Seely, Jeffrey Scott

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REEL: 054913 FRAME: 0461

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	SYSTEMS AND METHODS FOR IMPROVED SPEECH RECOGNITION USING NEUROMUSCULAR INFORMATION	Patent Cooperation Treaty	PCT/US2019/031114	5/7/19					Berenzweig, Adam; Kaifosh, Patrick; Du, Alan Huan; Seely, Jeffrey Scott; Wetmore, Daniel
Pending	SYSTEMS AND METHODS FOR IMPROVED SPEECH RECOGNITION USING NEUROMUSCULAR INFORMATION	US	15/974430	5/8/18					Berenzweig, Adam; Kaifosh, Patrick; Du, Alan Huan; Seely, Jeffrey Scott
Pending	METHODS AND APPARATUS FOR IMPROVED SIGNAL ROBUSTNESS FOR A WEARABLE NEUROMUSCULAR RECORDING DEVICE	Patent Cooperation Treaty	PCT/US2019/042579	7/19/19					Barbre, Curtis; Reid, Jonathan; Guo, Ning; Pool, Brandon
Pending	METHODS AND APPARATUS FOR IMPROVED SIGNAL ROBUSTNESS FOR A WEARABLE NEUROMUSCULAR RECORDING DEVICE	US	16/516777	7/19/19					Barbre, Curtis; Reid, Jonathan; Guo, Ning; Pool, Brandon
Expired	METHODS AND APPARATUS FOR IMPROVED SIGNAL ROBUSTNESS FOR A WEARABLE NEUROMUSCULAR DEVICE	US	62/700434	7/19/18					Barbre, Curtis; Reid, Jonathan; Guo, Ning

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REEL: 054913 FRAME: 0462

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	SHIELDING TECHNIQUES FOR NOISE REDUCTION IN SURFACE ELECTROMYOGRAPHY SIGNAL MEASUREMENT AND RELATED SYSTEMS AND METHODS	Patent Cooperation Treaty	PCT/US2019/034173	5/28/19					Guo, Ning; Barachant, Alexandre; Reid, Jonathan
Pending	SHIELDING TECHNIQUES FOR NOISE REDUCTION IN SURFACE ELECTROMYOGRAPHY SIGNAL MEASUREMENT AND RELATED SYSTEMS AND METHODS	US	16/424144	5/28/19					Guo, Ning; Barachant, Alexandre; Reid, Jonathan
Expired	SHIELDING TECHNIQUES FOR NOISE REDUCTION IN SURFACE ELECTROMYOGRAPHY SIGNAL MEASUREMENT AND RELATED SYSTEMS AND METHODS	US	62/696242	7/10/18					Guo, Ning; Barachant, Alexandre; Reid, Jonathan
Expired	TECHNIQUES FOR SHIELDING SURFACE ELECTROMYOGRAPHY SIGNALS AND RELATED SYSTEMS AND METHODS	US	62/677574	5/29/18					Guo, Ning; Barachant, Alexandre; Reid, Jonathan
Pending	METHODS AND APPARATUS FOR PROVIDING SUB-MUSCULAR CONTROL	Patent Cooperation Treaty	PCT/US2019/028299	4/19/19					Kaifosh, Patrick; Barachant, Alexandre; Wetmore, Daniel

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REEL: 054913 FRAME: 0463

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	METHODS AND APPARATUS FOR PROVIDING SUB-MUSCULAR CONTROL	US	16/389419	4/19/19					Barachant, Alexandre; Kaifosh, Patrick; Wetmore, Daniel
Expired	METHODS AND APPARATUS FOR PROVIDING SUB-MUSCULAR CONTROL	US	62/676567	5/25/18					Kaifosh, Patrick; Barachant, Alexandre
Pending	USER IDENTIFICATION AND AUTHENTICATION WITH NEUROMUSCULAR SIGNATURES	Patent Cooperation Treaty	PCT/US2019/037302	6/14/19					Osborn, Christopher; Barachant, Alexandre; Wetmore, Daniel
Pending	USER IDENTIFICATION AND AUTHENTICATION WITH NEUROMUSCULAR SIGNATURES	US	16/442378	6/14/19					Osborn, Christopher; Barachant, Alexandre; Wetmore, Daniel
Expired	USER IDENTIFICATION AND AUTHENTICATION WITH NEUROMUSCULAR SIGNATURES	US	62/685122	6/14/18					Osborn, Christopher; Barachant, Alexandre
Published	TECHNIQUES FOR ANONYMIZING NEUROMUSCULAR SIGNAL DATA	Patent Cooperation Treaty	PCT/US2019/015244	1/25/19	WO2019/148002	8/1/19			Kaifosh, Patrick; Giurgica-Tiron, Tudor; Kober, Steven; Al-natsheh, Adam; Barachant, Alexandre

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REEL: 054913 FRAME: 0464

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Allowed	TECHNIQUES FOR ANONYMIZING NEUROMUSCULAR SIGNAL DATA	US	16/258442	1/25/19	US-2019-0228579-A1	7/25/19			Kaifosh, Patrick; Giurgica-Tiron, Tudor; Kober, Steven; Al-natsheh, Adam; Barachant, Alexandre
Expired	TECHNIQUES FOR ANONYMIZING NEUROMUSCULAR SIGNAL DATA	US	62/621782	1/25/18					Kaifosh, Patrick; Giurgica-Tiron, Tudor; Kober, Steven; Al-natsheh, Adam
Published	VISUALIZATION OF RECONSTRUCTED HANDSTATE INFORMATION	Patent Cooperation Treaty	PCT/US2019/015180	1/25/19	WO2019/147956	8/1/19			Giurgica-Tiron, Tudor; Berenzweig, Adam; Maczak, Attila; Astolfi, Michael; Remaley, Mason
Published	VISUALIZATION OF RECONSTRUCTED HANDSTATE INFORMATION	US	16/258430	1/25/19	US-2019-0228591-A1	7/25/19			Giurgica-Tiron, Tudor; Berenzweig, Adam; Maczak, Attila; Astolfi, Michael; Remaley, Mason
Expired	VISUALIZATION OF RECONSTRUCTED HANDSTATE INFORMATION	US	62/621792	1/25/18					Giurgica-Tiron, Tudor; Berenzweig, Adam; Maczak, Attila; Astolfi, Michael; Remaley, Mason
Published	USER-CONTROLLED TUNING OF HANDSTATE REPRESENTATION MODEL PARAMETERS	Patent Cooperation Treaty	PCT/US2019/015183	1/25/19	WO/2019/147958	8/1/19			Kaifosh, Patrick; Berenzweig, Adam; Al-natsheh, Adam

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REEL: 054913 FRAME: 0465

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Allowed	USER-CONTROLLED TUNING OF HANDSTATE REPRESENTATION MODEL PARAMETERS	US	16/258409	1/25/19	US-2019-0228590-A1	7/25/19			Kaifosh, Patrick; Berenzweig, Adam; Al-natsheh, Adam
Expired	USER-CONTROLLED TUNING OF HANDSTATE REPRESENTATION MODEL PARAMETERS	US	62/621770	1/25/18					Kaifosh, Patrick; Berenzweig, Adam; Al-natsheh, Adam
Published	CALIBRATION TECHNIQUES FOR HANDSTATE REPRESENTATION MODELING USING NEUROMUSCULAR SIGNALS	Patent Cooperation Treaty	PCT/US2019/015238	1/25/19	WO2019/147996	8/1/19			Kaifosh, Patrick; Giurgica-Tiron, Tudor; Berenzweig, Adam; Kober, Steven; Al-natsheh, Adam; Barachant, Alexandre; Wang, Zhuo
Allowed	CALIBRATION TECHNIQUES FOR HANDSTATE REPRESENTATION MODELING USING NEUROMUSCULAR SIGNALS	US	16/257979	1/25/19	US-2019-0227627-A1	7/25/19			Kaifosh, Patrick; Giurgica-Tiron, Tudor; Berenzweig, Adam; Kober, Steven; Al-natsheh, Adam; Barachant, Alexandre; Wang, Zhuo
Expired	CALIBRATION TECHNIQUES FOR HANDSTATE REPRESENTATION MODELING USING NEUROMUSCULAR SIGNALS	US	62/621838	1/25/18					Kaifosh, Patrick; Giurgica-Tiron, Tudor; Berenzweig, Adam; Kober, Steven; Al-natsheh, Adam
Published	METHODS AND APPARATUS FOR MITIGATING NEUROMUSCULAR SIGNAL ARTIFACTS	Patent Cooperation Treaty	PCT/US2019/015174	1/25/19	WO2019/147953	8/1/19			Giurgica-Tiron, Tudor; Al-natsheh, Adam; Mao, Qishi; Kaifosh, Patrick

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REEL: 054913 FRAME: 0466

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Published	METHODS AND APPARATUS FOR MITIGATING NEUROMUSCULAR SIGNAL ARTIFACTS	US	16/258279	1/25/19	US-2019-0223748-A1	7/25/19			Al-natsheh, Adam; Giurgica-Tiron, Tudor; Mao, Qiushi; Kaifosh, Patrick
Expired	METHODS AND APPARATUS FOR MITIGATING NEUROMUSCULAR SIGNAL ARTIFACTS	US	62/621829	1/25/18					Giurgica-Tiron, Tudor; Al-natsheh, Adam
Published	REAL-TIME PROCESSING OF HANDSTATE REPRESENTATION MODEL ESTIMATES	Patent Cooperation Treaty	PCT/US2019/015167	1/25/19	WO2019/147949	8/1/19			Giurgica-Tiron, Tudor; Al-natsheh, Adam; Danielson, Nathan
Allowed	REAL-TIME PROCESSING OF HANDSTATE REPRESENTATION MODEL ESTIMATES	US	16/258232	1/25/19	US-2019-0228533-A1	7/25/19			Giurgica-Tiron, Tudor; Al-natsheh, Adam; Danielson, Nathan
Expired	REAL-TIME SMOOTHING OF HANDSTATE REPRESENTATION MODEL ESTIMATES	US	62/621741	1/25/18					Giurgica-Tiron, Tudor; Al-natsheh, Adam
Expired	CONTINUOUS AND DISCRETE CONTROL GESTURES USING HANDSTATE REPRESENTATION	US	62/621728	1/25/18					Giurgica-Tiron, Tudor; Berenzweig, Adam; Al-natsheh, Adam
Published	HANDSTATE RECONSTRUCTION BASED ON MULTIPLE INPUTS	Patent Cooperation Treaty	PCT/US2019/015134	1/25/19	WO2019/147928	8/1/19			Kaifosh, Patrick; Giurgica-Tiron, Tudor; Jurman, Brett

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REEL: 054913 FRAME: 0467

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Published	HANDSTATE RECONSTRUCTION BASED ON MULTIPLE INPUTS	US	16/257922	1/25/19	US-2019-0228330-A1	7/25/19			Kaifosh, Patrick; Giurgica-Tiron, Tudor; Jurman, Brett
Expired	HANDSTATE RECONSTRUCTION BASED ON MULTIPLE INPUTS	US	62/621818	1/25/18					Kaifosh, Patrick; Giurgica-Tiron, Tudor
Pending	SYSTEMS AND METHODS FOR IMPROVED SPEECH RECOGNITION USING NEUROMUSCULAR INFORMATION	US	15/974384	5/8/18					Berenzweig, Adam; Kaifosh, Patrick; Du, Alan Huan; Seely, Jeffrey Scott
Published	METHODS AND APPARATUS FOR SIMULTANEOUS DETECTION OF DISCRETE AND CONTINUOUS GESTURES	Patent Cooperation Treaty	PCT/US2018/063215	11/30/18	WO2019/108880	6/6/19			Kaifosh, Patrick; Demers, Steven; Berenzweig, Adam; Astolfi, Michael; Awad, Lana; Giurgica-Tiron, Tudor; Al-natsheh, Adam
Expired	METHODS AND APPARATUS FOR SIMULTANEOUS DETECTION OF DISCRETE AND CONTINUOUS GESTURES	US	62/592656	11/30/17					Kaifosh, Patrick; Demers, Steven; Berenzweig, Adam; Astolfi, Michael; Awad, Lana
Published	DUAL-SUPPLY ANALOG CIRCUITRY FOR SENSING SURFACE EMG SIGNALS	Patent Cooperation Treaty	PCT/US2018/061409	11/16/18	WO2019/099758	5/23/19			Guo, Ning; Reid, Jonathan

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REEL: 054913 FRAME: 0468

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Published	DUAL-SUPPLY ANALOG CIRCUITRY FOR SENSING SURFACE EMG SIGNALS	US	15/816435	11/17/17	US-2019-0150777-A1	5/23/19			Guo, Ning; Reid, Jonathan
Published	SYSTEMS AND METHODS FOR IDENTIFYING BIOLOGICAL STRUCTURES ASSOCIATED WITH NEUROMUSCULAR SOURCE SIGNALS	Patent Cooperation Treaty	PCT/US2018/056768	10/19/18	WO2019/079757	4/25/19			Kaifosh, Patrick; Giurgica-Tiron, Tudor; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Published	SYSTEMS AND METHODS FOR IDENTIFYING BIOLOGICAL STRUCTURES ASSOCIATED WITH NEUROMUSCULAR SOURCE SIGNALS	US	16/165841	10/19/18	US-2019-0121306-A1	4/25/19			Kaifosh, Patrick; Giurgica-Tiron, Tudor; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Published	SYSTEMS AND METHODS FOR IDENTIFYING BIOLOGICAL STRUCTURES ASSOCIATED WITH NEUROMUSCULAR SOURCE SIGNALS	US	16/165806	10/19/18	US-2019-0121305-A1	4/25/19			Kaifosh, Patrick; Giurgica-Tiron, Tudor; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Expired	SYSTEMS AND METHODS FOR IDENTIFYING BIOLOGICAL STRUCTURES ASSOCIATED WITH NEUROMUSCULAR SOURCE SIGNALS	US	62/574496	10/19/17					Kaifosh, Patrick; Giurgica-Tiron, Tudor; Machado, Timothy; Reardon, Thomas; Schomburg, Erik

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REEL: 054913 FRAME: 0469

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
National Phase	ADAPTIVE SYSTEM FOR DERIVING CONTROL SIGNALS FROM MEASUREMENTS OF NEUROMUSCULAR ACTIVITY	Patent Cooperation Treaty	PCT/US2017/043792	7/25/17	WO2018/022658	2/1/18			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik; Merel, Joshua; Demers, Steven
Published	ADAPTIVE SYSTEM FOR DERIVING CONTROL SIGNALS FROM MEASUREMENTS OF NEUROMUSCULAR ACTIVITY	US	15/659487	7/25/17	US-2018-0020951-A1	1/25/18			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik; Merel, Joshua; Demers, Steven
Expired	ADAPTIVE SYSTEM FOR DERIVING CONTROL SIGNALS FROM MEASUREMENTS OF MUSCLE OR MOTOR UNIT ACTIVITY	US	62/366427	7/25/16					Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik; Merel, Joshua
Published copy of PCT/US2017/043792 (WGS Ref. No. C1527.700 04WO00) provided	ADAPTIVE SYSTEM FOR DERIVING CONTROL SIGNALS FROM MEASUREMENTS OF NEUROMUSCULAR ACTIVITY	European Patent Convention	17835141.7	7/25/17	3487457	5/29/19			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik; Merel, Joshua; Demers, Steven
Pending copy of PCT/US2017/043792 (WGS Ref. No. C1527.700 04WO00) provided	ADAPTIVE SYSTEM FOR DERIVING CONTROL SIGNALS FROM MEASUREMENTS OF NEUROMUSCULAR ACTIVITY	China (People's Republic)	2017800590 76.3	7/25/17					Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik; Merel, Joshua; Demers, Steven

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REEL: 054913 FRAME: 0470

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
National Phase	SYSTEM AND METHOD FOR MEASURING THE MOVEMENTS OF ARTICULATED RIGID BODIES	Patent Cooperation Treaty	PCT/US2017/043791	7/25/17	WO2018/022657	2/1/18			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik; Tong, Calvin
Published	SYSTEM AND METHOD FOR MEASURING THE MOVEMENTS OF ARTICULATED RIGID BODIES	US	15/659504	7/25/17	US-2018-0020978-A1	1/25/18			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik; Tong, Calvin
Expired	SYSTEM FOR MEASURING THE MOVEMENTS OF MULTIPLE ARTICULATED RIGID BODIES	US	62/366426	7/25/16					Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik; Tong, Calvin
Published copy of PCT/US2017/043791 provided (WGS Ref. No. C1527.700 03WO00)	SYSTEM AND METHOD FOR MEASURING THE MOVEMENTS OF ARTICULATED RIGID BODIES	European Patent Convention	17835140.9	7/25/17	3487595	5/29/19			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik; Tong, Calvin
Expired	MUSCLE AND TENDON IDENTIFICATION AND ACTIVITY MEASUREMENTS	US	62/366425	7/25/16					Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
National Phase	METHODS AND APPARATUS FOR PREDICTING MUSCULO-SKELETAL POSITION INFORMATION USING WEARABLE AUTONOMOUS SENSORS	Patent Cooperation Treaty	PCT/US2017/043693	7/25/17	WO2018/022602	2/1/18			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik

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REEL: 054913 FRAME: 0471

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Published	METHODS AND APPARATUS FOR PREDICTING MUSCULO-SKELETAL POSITION INFORMATION USING WEARABLE AUTONOMOUS SENSORS	US	16/353998	3/14/19	US-2019-0212817-A1	7/11/19			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Published	METHODS AND APPARATUS FOR PREDICTING MUSCULO-SKELETAL POSITION INFORMATION USING WEARABLE AUTONOMOUS SENSORS	US	15/659072	7/25/17	US-2018-0024635-A1	1/25/18			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Expired	VIRTUAL MUSCULO-SKELETAL REPRESENTATION USING WEARABLE SENSORS	US	62/366421	7/25/16					Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Published copy of PCT/US2017/043693 provided (WGS Ref. No. C1527.700 01WO00)	METHODS AND APPARATUS FOR PREDICTING MUSCULO-SKELETAL POSITION INFORMATION USING WEARABLE AUTONOMOUS SENSORS	European Patent Convention	17835112.8	7/25/17	3487395	5/29/19			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik

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REEL: 054913 FRAME: 0472

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending copy of PCT/US201 7/043693 provided (WGS Ref. No. C1527.700 01WO00)	METHODS AND APPARATUS FOR PREDICTING MUSCULO- SKELETAL POSITION INFORMATION USING WEARABLE AUTONOMOUS SENSORS	China (People's Republic)	2017800590 937	7/25/17					Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
National Phase	METHODS AND APPARATUS FOR INFERRING USER INTENT BASED ON NEUROMUSCULAR SIGNALS	Patent Cooperation Treaty	PCT/US201 7/043686	7/25/17	WO2018/ 022597	2/1/18			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Pending	METHODS AND APPARATUS FOR INFERRING USER INTENT BASED ON NEUROMUSCULAR SIGNALS	US	16/526401	7/30/19					Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Granted	METHODS AND APPARATUS FOR INFERRING USER INTENT BASED ON NEUROMUSCULAR SIGNALS	US	15/659018	7/25/17	US-2018- 0024634- A1	1/25/18	10409371	9/10/19	Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Expired	METHOD AND APPARATUS FOR INFERRING USER INTENTION	US	62/366419	7/25/16					Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Published copy of PCT/US201 7/043686 provided (WGS Ref. No. C1527.700 01WO00)	METHODS AND APPARATUS FOR INFERRING USER INTENT BASED ON NEUROMUSCULAR SIGNALS	European Patent Convention	17835111	7/25/17	3487402	5/29/19			Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Pending copy of PCT/US201 7/043686 provided (WGS Ref. No. C1527.700 01WO00)	METHODS AND APPARATUS FOR INFERRING USER INTENT BASED ON NEUROMUSCULAR SIGNALS	China (People's Republic)	2017800591 018	7/25/17					Kaifosh, Patrick; Machado, Timothy; Reardon, Thomas; Schomburg, Erik
Published	ジェスチャに基づいて制御 するた めの筋活動センサ信号と慣 性セン サ信号とを結合する方法お よび装 置	Japan	2018021513 2	11/16/18	20190239 41				
Withdrawn	Systems, articles, and methods for elastic electrical cables and wearable electronic devices employing same	European Patent Office	EP20150748 851	2/12/15	EP310473 7				
Abandoned	弾性電気ケーブルのための システム、製品、及び方法、並び に、そ れを用いるウェアラブル電 子デバイス	Japan	2016055085 4	2/12/15	20175093 86				

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REEL: 054913 FRAME: 0474

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	NEUROMUSCULAR TEXT ENTRY, WRITING AND DRAWING IN AUGMENTED REALITY SYSTEMS	US	16/577,352	9/20/2019					Berenzweig, Adam; Wetmore, Daniel
Pending	NEUROMUSCULAR CONTROL OF AN AUGMENTED REALITY SYSTEM	US	16/577,207	9/20/2019					Stone, Jasmine; Awad, Lana; Mao, Qiusui; Osborn, Christopher
Pending	NEUROMUSCULAR CONTROL OF OBJECTS IN AN ENVIRONMENT	US	16/584,484	9/26/2019					Mao, Qiusui; Stone, Jasmine; Berenzweig, Adam; Kaifosh, Patrick; DiMaiolo, Robert John
Pending	REAL-TIME PROCESSING OF HANDSTATE REPRESENTATION MODEL ESTIMATES	US	16/589,539	10/1/2019					Giurgica-Tiron, Tudor; Al-natsheh, Adam; Danielson, Nathan
Pending	USE OF NEUROMUSCULAR SIGNALS TO PROVIDE ENHANCED INTERACTIONS WITH PHYSICAL OBJECTS IN AN AUGMENTED REALITY ENVIRONMENT	US	16/593,446	10/4/2019					Osborn, Christopher; Renaley, Mason; Awad, Lana; Berenzweig, Adam; Susu-Mago, Arielle; Astolfi, Michael
Pending	TECHNIQUES FOR ANONYMIZING NEUROMUSCULAR SIGNAL DATA	US	16/654,990	10/16/2019					Kaifosh, Patrick; Giurgica-Tiron, Tudor; Kober, Steven; Al-natsheh, Adam; Barachant, Alexandre
Pending	USER-CONTROLLED TUNING OF HANDSTATE REPRESENTATION MODEL PARAMETERS	US	16/657,029	10/18/2019					Kaifosh, Patrick; Berenzweig, Adam; Al-natsheh, Adam
Pending	CALIBRATION TECHNIQUES FOR HANDSTATE REPRESENTATION MODELING USING NEUROMUSCULAR SIGNALS	US	16/671,066	10/31/2019					Kaifosh, Patrick; Giurgica-Tiron, Tudor; Berenzweig, Adam; Kober, Steven; Al-natsheh, Adam; Barachant, Alexandre; Wang, Zhuo
Pending	USER TRAINING SYSTEMS AND METHODS	US	62/931,082	11/5/2019					Barachant, Alexandre; Wetmore, Daniel
Pending	SYSTEMS AND METHODS FOR CONTEXTUALIZED INTERACTIONS WITH AN ENVIRONMENT	US	62/940,121	11/25/2019					Muhammad, Faizan; Wetmore, Daniel

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REEL: 054913 FRAME: 0475

Status	Title	Jurisdiction	App. Num.	Filing Date	Pub. Num.	Pub. Date	Patent Num.	Issue Date	Inventors
Pending	WEARABLE MUSCLE INTERFACE SYSTEMS, DEVICES AND METHODS THAT INTERACT WITH CONTENT DISPLAYED ON AN ELECTRONIC DISPLAY	US	16/696,760	11/26/2019					Bailey, Matthew; Grant, Aaron; Lake, Stephen
Pending	METHODS AND TECHNIQUES OF REDUCING NOISE SETTLING IN NEUROMUSCULAR SENSING APPLICATIONS	US	62/943,669	12/4/2019					Guo, Ning; Gidwani, Vickram; Reid, Jonathan
Pending	NEUROMUSCULAR TEXT ENTRY, WRITING AND DRAWING IN AUGMENTED REALITY SYSTEMS	Patent Cooperation Treaty	PCT/US2019/052151	9/20/2019					Berenzweig, Adam; Wetmore, Daniel
Pending	NEUROMUSCULAR CONTROL OF AN AUGMENTED REALITY SYSTEM	Patent Cooperation Treaty	PCT/US2019/052131	9/20/2019					Stone, Jasmine; Awad, Lana; Mao, Qiushi; Osborn, Christopher; Wetmore, Daniel
Pending	NEUROMUSCULAR CONTROL OF PHYSICAL OBJECTS IN AN ENVIRONMENT	Patent Cooperation Treaty	PCT/US2019/053234	9/26/2019					Mao, Qiushi; Stone, Jasmine; Berenzweig, Adam; Kaifosh, Patrick; DiMaio, Robert John; Reisman, Jason; Brown, Naor; Bartov, Nitzan; Duyan, Joshua; Wetmore, Daniel; Cochran, Robert
Pending	USE OF NEUROMUSCULAR SIGNALS TO PROVIDE ENHANCED INTERACTIONS WITH PHYSICAL OBJECTS IN AN AUGMENTED REALITY ENVIRONMENT	Patent Cooperation Treaty	PCT/US2019/054716	10/4/2019					Osborn, Christopher; Remaley, Mason; Awad, Lana; Berenzweig, Adam; Susu-Mago, Arielle; Astolfi, Michael; Wetmore, Daniel
Pending	FEEDBACK FROM NEUROMUSCULAR ACTIVATIONS WITHIN VARIOUS TYPES OF VIRTUAL AND/OR AUGMENTED REALITY ENVIRONMENTS	Patent Cooperation Treaty	PCT/US2019/061759	11/15/2019					Kaifosh, Patrick; Barachant, Alexandre; Remaley, Mason; Kilian, Julien; Hong, Kirak; Danielson, Nathan; Mao, Qiushi; Wetmore, Daniel
Pending	METHODS AND APPARATUS FOR AUTOCALIBRATION OF A WEARABLE ELECTRODE SENSOR SYSTEM	Patent Cooperation Treaty	PCT/US2019/063587	11/27/19					Barachant, Alexandre; Wetmore, Daniel

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