PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT6741366

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RPX CORPORATION	05/14/2021

RECEIVING PARTY DATA

Name:	FACEBOOK TECHNOLOGIES, LLC
Street Address:	1601 WILLOW ROAD
City:	MENLO PARK
State/Country:	CALIFORNIA
Postal Code:	94025

PROPERTY NUMBERS Total: 110

Property Type	Number
Patent Number:	9773349
Patent Number:	10026230
Patent Number:	9898844
Application Number:	62235018
Patent Number:	10110883
Application Number:	62339748
Patent Number:	10387719
Patent Number:	9262865
Patent Number:	9679416
Patent Number:	10147239
Patent Number:	9865093
Patent Number:	10445937
Patent Number:	9639984
Patent Number:	9807383
Patent Number:	9934587
Patent Number:	10614581
Patent Number:	9406171
Application Number:	62114195
Patent Number:	9844119
Patent Number:	10334240

Property Type	Number
Patent Number:	9412205
Application Number:	60420638
Application Number:	60513725
Patent Number:	7343278
Patent Number:	7987079
Patent Number:	10649209
Application Number:	16845018
Application Number:	16877490
Application Number:	62355112
Patent Number:	10444509
Patent Number:	9916664
Patent Number:	10366495
Patent Number:	10488666
Application Number:	16658078
Application Number:	17168140
Patent Number:	8384999
Patent Number:	9264479
Patent Number:	9672660
Patent Number:	9990759
Patent Number:	10586395
Patent Number:	9354702
Patent Number:	9996155
Patent Number:	9626801
Patent Number:	9558592
Application Number:	15389095
Application Number:	15476778
Patent Number:	10007115
Patent Number:	10089791
Patent Number:	9659381
Patent Number:	9585581
Patent Number:	9578399
Patent Number:	9978174
Patent Number:	9599825
Patent Number:	9625724
Patent Number:	9727977
Patent Number:	9652047
Patent Number:	9799142
Patent Number:	9830395

Property Type	Number
Patent Number:	9536355
Patent Number:	9619712
Patent Number:	9864910
Patent Number:	9865058
Patent Number:	10755416
Application Number:	16923010
Application Number:	62441249
Patent Number:	10564720
Patent Number:	9535496
Patent Number:	10585473
Patent Number:	10212000
Patent Number:	10652041
Application Number:	62025916
Application Number:	14802813
Patent Number:	9754399
Patent Number:	10096144
Application Number:	62164276
Patent Number:	9984508
Patent Number:	9383819
Patent Number:	9996983
Application Number:	62114175
Application Number:	15018009
Application Number:	62441219
Patent Number:	10660570
Application Number:	62120808
Application Number:	15043959
Application Number:	16114772
Patent Number:	10812422
Application Number:	17011549
Application Number:	62312813
Application Number:	15468470
Application Number:	15464194
Application Number:	15059129
Application Number:	62395226
Patent Number:	10656731
Application Number:	62488538
Patent Number:	10663729
Patent Number:	10714050

Property Type	Number
Application Number:	16927726
Application Number:	62777474
Application Number:	16709787
Application Number:	62790458
Application Number:	16739103
Patent Number:	10698562
Application Number:	16915703
Patent Number:	10867220
Application Number:	17095177
Patent Number:	10686980
Application Number:	16899398
Application Number:	16214142
Application Number:	62120776
Application Number:	62163046

CORRESPONDENCE DATA

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NAME OF SUBMITTER:	HIMANSHU S. AMIN
SIGNATURE:	/Himanshu S. Amin/
DATE SIGNED:	06/02/2021

Total Attachments: 56

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EXHIBIT A TO THE
PATENT SALE AGREEMENT

PATENT ASSIGNMENT

This patent assignment ("Assignment") is entered into as of May 14, 2021, by and between RPX Corporation, a Delaware corporation, with principal place of business at Four Embarcadero Center, Suite 4000, San Francisco, CA 94111 ("Seller"), and Facebook Technologies, LLC, a Delaware limited liability company, with offices at 1601 Willow Road, Menlo Park, CA 94025 ("Buyer").

For good and valuable consideration, the receipt of which is hereby acknowledged, Seller hereby assigns to Buyer, Seller's entire right, title, and interest throughout the world in and to:

(a) the issued patents and patent applications identified on Schedule 1 hereto and any issued patent or patent application that directly or indirectly claims or is amended to claim priority to any of the above, in whole or in part,

(b) to the extent not included in (a), all issued patents, rights to inventions, and pending and future applications for patents under U.S. law or regulation or of any foreign country with respect to the patentable inventions from which such issued patents or pending patent applications arise, including without limitation utility patents, utility models, design patents, invention certificates, provisionals, continuations, divisionals, continuations-in-part, reexaminations, reissues, extensions and renewals, in all countries of the world, as well as any patents and patent applications to which any of the foregoing directly or indirectly claim priority, in whole or in part (subcategories (a) and (b) collectively, (the "Assigned Patents");

(c) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under or on account of, the Assigned Patents, including, without limitation, all causes of action and other enforcement rights for damages, injunctive relief, and any other remedies of any kind for past, current, and future infringement; and

(d) all rights to collect royalties or other payments under or on account of the Assigned Patents and any of the foregoing subcategory (c).

The terms and conditions of this Assignment will inure to the benefit of Buyer, its successors, assigns, and other legal representatives and will be binding upon Seller, its successors, assigns, and other legal representatives.

In the event of any conflict between the terms of this Patent Assignment and that Patent Sale Agreement between the Seller and Buyer dated May 14, 2021, the Patent Sale Agreement will govern. Notwithstanding anything to the contrary, nothing in this Agreement shall purport to

grant, and the term "Assigned Patents" shall not include, any rights under any patents and patent applications that are broader in scope than those rights granted to Seller under that Patent Rights Purchase and Assignment Agreement by and between Seller and Daqri, LLC, dated June 15, 2020 (the "RPX-Daqri Agreement"), a copy of which has been provided by Seller to Buyer prior to the Effective Date of this Assignment.

Seller:	**Buyer:**
RPX Corporation	**Facebook Technologies, LLC**
By:_____	By: Michael L. Johnson
Name:_____	Name: Michael L. Johnson
Title:_____	Title: Vice President & Assistant Secretary
Date:_____	Date: May 14, 2021

SCHEDULE 1 TO THE PATENT ASSIGNMENT

PATENTS AND PATENT APPLICATIONS

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9773349		US14/184523	US	Active parallax correction	Active	19-Feb-2014	26-Sep-2017
	EP3108288	EP15752367.1	EP	Active parallax correction	Withdrawn	18-Feb-2015	28-Dec-2016
N/A	WO2015126939	PCT/US2015/016375	WO	Active parallax correction	Expired (National Phased)	18-Feb-2015	27-Aug-2015
US10026230		US15/085097	US	Augmented point cloud for a visualization system and method	Active	30-Mar-2016	17-Jul-2018
US9898844		US14/145458	US	Augmented reality content adapted to changes in real world space geometry	Active	31-Dec-2013	20-Feb-2018
	EP3090411	EP14876769.2	EP	Augmented reality content adapted to space geometry	Withdrawn	17-Dec-2014	09-Nov-2016

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
N/A	WO2015102904	PCT/US2014/070823	WO	Augmented reality content adapted to space geometry	Expired (National Phased)	17-Dec-2014	09-Jul-2015
		US62/235018	US	Bidirectional holographic lens	Expired	30-Sep-2015	
US10110883		US15/283163	US	Bidirectional holographic lens	Active	30-Sep-2016	23-Oct-2018
N/A	WO2017059379	PCT/US2016/055038	WO	Bidirectional holographic lens	Expired (National Phased)	30-Sep-2016	06-Apr-2017
		US62/339748	US	Biometric based false input detection for a wearable computing device	Expired	20-May-2016	
US10387719		US15/600104	US	Biometric based false input detection for a wearable computing device	Active	19-May-2017	20-Aug-2019
US9262865		US13/840048	US	Content creation tool	Active	15-Mar-2013	16-Feb-2016
US9679416		US15/041395	US	Content creation tool	Active	11-Feb-2016	13-Jun-2017
US10147239		US15/617951	US	Content creation tool	Active	08-Jun-2017	04-Dec-2018

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
AU2014235427	AU2014235427	AU2014235427	AU	Content creation tool	Granted	12-Mar-2014	07-Jul-2016
	EP2973356	EP14770112.2	EP	Content creation tool	Pending	12-Mar-2014	20-Jan-2016
6022732	JP6022732	JP2016-501608	JP	Content creation tool	Granted	12-Mar-2014	09-Nov-2016
1017377250000	1020150131358	10-2015-7029881	KR	Content creation tool	Granted	12-Mar-2014	12-May-2017
713294	NZ713294	713294	NZ	Content creation tool	Granted	12-Mar-2014	25-May-2017
N/A	WO2014150980	PCT/US2014/024698	WO	Content creation tool	Expired (National Phased)	12-Mar-2014	25-Sep-2014
US9865093		US15/199570	US	Contextual augmented reality devices collaboration	Active	30-Jun-2016	09-Jan-2018
US10445937		US15/794729	US	Contextual augmented reality devices collaboration	Active	26-Oct-2017	15-Oct-2019
US9639984		US13/909046	US	Data manipulation based on real world object manipulation	Active	03-Jun-2013	02-May-2017
AU2014275191	AU2014275191	AU2014275191	AU	Data manipulation based on real world object manipulation	Granted	02-Jun-2014	24-Aug-2017

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
	EP3005683	EP14807284.6	EP	Data manipulation based on real world object manipulation	Withdrawn	02-Jun-2014	13-Apr-2016
6192817	JP6192817	JP2016-518384	JP	Data manipulation based on real world object manipulation	Granted	02-Jun-2014	06-Sep-2017
1018031680000	1020160016964	10-2015-7037217	KR	Data manipulation based on real world object manipulation	Granted	02-Jun-2014	23-Nov-2017
715232	NZ715232	715232	NZ	Data manipulation based on real world object manipulation	Granted	02-Jun-2014	24-May-2018
N/A	WO2014197394	PCT/US2014/040555	WO	Data manipulation based on real world object manipulation	Expired (National Phased)	02-Jun-2014	11-Dec-2014
US9807383		US15/085084	US	Wearable video headset and method for calibration	Active	30-Mar-2016	31-Oct-2017
US9934587		US15/199832	US	Deep image localization	Active	30-Jun-2016	03-Apr-2018
US10614581	US20180150961	US15/880364	US	Deep image localization	Active	25-Jan-2018	07-Apr-2020

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9406171		US14/467391	US	Distributed aperture visual inertia navigation	Active	25-Aug-2014	02-Aug-2016
	EP3194888	EP15836115.4	EP	Distributed aperture visual inertia navigation	Pending	21-Aug-2015	26-Jul-2017
N/A	WO2016032886	PCT/US2015/046269	WO	Distributed aperture visual inertia navigation	Expired (National Phased)	21-Aug-2015	03-Mar-2016
		US62/114195	US				
US9844119		US15/019031	US	Dynamic lighting for head mounted device	Active	09-Feb-2016	12-Dec-2017
N/A	WO2016130533	PCT/US2016/017133	WO	Dynamic lighting for head mounted device	Expired (National Phased)	09-Feb-2016	18-Aug-2016
US10334240		US15/338049	US	Efficient augmented reality display calibration	Active	28-Oct-2016	25-Jun-2019
US9412205		US14/467428	US	Extracting sensor data for augmented reality content	Active	25-Aug-2014	09-Aug-2016
N/A	WO2016032889	PCT/US2015/046282	WO	Extracting sensor data for augmented reality content	Expired (National Phased)	21-Aug-2015	03-Mar-2016

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		US60/420638	US	Augmented reality registration method based on matching templates generated from an image texture	Expired	22-Oct-2002	
		US60/513725	US	Registrating a specific planar scene using fiducial markers	Expired	22-Oct-2003	
US7343278		US10/692020	US	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Active	22-Oct-2003	11-Mar-2008
US7987079		US12/046389	US	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Active	11-Mar-2008	26-Jul-2011
AT521953	EP1556805	EP2003796236	AT	Tracking a surface in a three-dimensional scene using natural visual features of the surface	Expired	22-Oct-2003	15-Sep-2011
N/A	AU2003298491	AU2003298491	AU	Tracking a surface in a 3-dimensional scene	Lapsed	22-Oct-2003	13-May-2004

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
				using natural visual features of the surface			
EP1556805	EP1556805	EP03796236.2	EP	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Granted	22-Oct-2003	24-Aug-2011
EP1556805	EP1556805	EP03796236.2	FR	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Lapsed	22-Oct-2003	24-Aug-2011
EP1556805	EP1556805	EP03796236.2	GB	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Granted	22-Oct-2003	24-Aug-2011
N/A	JP2006-507722	JP2004-546322	JP	TRACKING A SURFACE IN A 3-DIMENSIONAL SCENE USING NATURAL VISUAL FEATURES OF THE SURFACE	Lapsed (for not responding to the Decision of Rejection)	22-Oct-2003	02-Mar-2006
539632	NZ539632	539632	NZ	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Lapsed	22-Oct-2003	15-May-2008

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		PCT/US03/34292	WO	AUGMENTED REALITY REGISTRATION METHOD BASED ON MATCHING TEMPLATES GENERATED FROM AN IMAGE TEXTURE			
4452272	JP4452272	JP2006-507722	JP	JOINT COMPONENT FRAMEWORK FOR MODELING COMPLEX JOINT BEHAVIOR	Lapsed (for not paying the annuity)	23-Apr-2004	21-Apr-2010
N/A	WO2004038657	PCT/IB2003/006418	WO	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Expired (National Phased)	22-Oct-2003	06-May-2004
US10649209	US20180011322	US15/206111	US	Optical combiner apparatus	Active	08-Jul-2016	12-May-2020
	US20200233218	US16/845018	US	Optical combiner apparatus	Pending	09-Apr-2020	23-Jul-2020
	US20200278553	US16/877490	US	Optical combiner apparatus	Pending	19-May-2020	03-Sep-2020
N/A	WO2018009885	PCT/US2017/041228	WO	Optical combiner apparatus	Expired (National Phased)	07-Jul-2017	11-Jan-2018

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		US62/355112	US	Near eye diffractive holographic projection method	Expired	27-Jun-2016	
US10444509		US15/635025	US	Near eye diffractive holographic projection method	Active	27-Jun-2017	15-Oct-2019
US9916664		US15/019382	US	Multi-spectrum segmentation for computer vision	Active	09-Feb-2016	13-Mar-2018
US10366495		US15/880886	US	Multi-spectrum segmentation for computer vision	Active	26-Jan-2018	30-Jul-2019
US10488666		US15/893599	US	Optical waveguide devices, methods and systems incorporating same	Active	10-Feb-2018	26-Nov-2019
	US20200049998	US16/658078	US	Optical waveguide devices, methods and systems incorporating same	Pending	19-Oct-2019	13-Feb-2020

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		US17/168140	US	OPTICAL WAVEGUIDE DEVICES, METHODS AND SYSTEMS INCORPORATING SAME	Case not available/published in PTO	04-Feb-2021	
US8384999		US13/345769	US	Optical modules	Active	09-Jan-2012	26-Feb-2013
US9264479		US14/144359	US	Offloading augmented reality processing	Active	30-Dec-2013	16-Feb-2016
US9672660		US15/041437	US	Offloading augmented reality processing	Active	11-Feb-2016	06-Jun-2017
US9990759		US15/592939	US	Offloading augmented reality processing	Active	11-May-2017	05-Jun-2018
US10586395		US15/974998	US	Remote object detection and local tracking using visual odometry	Active	09-May-2018	10-Mar-2020
	EP3090409	EP14875991.3	EP	Offloading augmented reality processing	Withdrawn	10-Dec-2014	09-Nov-2016
N/A	WO2015102834	PCT/US2014/069536	WO	Offloading augmented reality processing	Expired (National Phased)	10-Dec-2014	09-Jul-2015

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9354702		US13/909042	US	Manipulation of virtual object in augmented reality via thought	Active	03-Jun-2013	31-May-2016
US9996155		US15/144545	US	Manipulation of virtual object in augmented reality via thought	Active	02-May-2016	12-Jun-2018
AU2014275189	AU2014275189	AU2014275189	AU	Manipulation of virtual object in augmented reality via thought	Granted	02-Jun-2014	22-Dec-2016
	EP3005037	EP14808371.0	EP	Manipulation of virtual object in augmented reality via thought	Withdrawn	02-Jun-2014	13-Apr-2016
6040342	JP6040342	JP2016-518383	JP	Manipulation of virtual objects in augmented reality through thinking	Granted	02-Jun-2014	07-Dec-2016
1016940890000	1020160016948	10-2015-7037131	KR	Manipulation of virtual object in augmented reality via thought	Granted	02-Jun-2014	02-Jan-2017
N/A	WO2014197392	PCT/US2014/040552	WO	Manipulation of virtual object in augmented reality via thought	Expired (National Phased)	02-Jun-2014	11-Dec-2014

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9626801		US14/145567	US	Visualization of physical characteristics in augmented reality	Active	31-Dec-2013	18-Apr-2017
US9558592		US14/461257	US	Visualization of physical interactions in augmented reality	Active	15-Aug-2014	31-Jan-2017
	US20170103581	US15/389095	US	Visualization of physical interactions in augmented reality	Abandoned	22-Dec-2016	13-Apr-2017
	US20170206419	US15/476778	US	Visualization of physical characteristics in augmented reality	Abandoned	31-Mar-2017	20-Jul-2017
	EP3090425	EP14876959.9	EP	Visualization of physical characteristics in augmented reality	Withdrawn	15-Dec-2014	09-Nov-2016
N/A	WO2015102862	PCT/US2014/070298	WO	Visualization of physical characteristics in augmented reality	Expired (National Phased)	15-Dec-2014	09-Jul-2015
N/A	WO2016025697	PCT/US2015/045029	WO	Visualization of physical interactions in augmented reality	Expired (National Phased)	13-Aug-2015	18-Feb-2016

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US10007115	US20170045742	US14/825148	US	Placement of a computer generated display with focal plane at finite distance using optical devices and a see-through head-mounted display incorporating the same	Active	12-Aug-2015	26-Jun-2018
N/A	WO2017027139	PCT/US2016/041588	WO	Placement of a computer generated display with focal plane at finite distance using optical devices and a seethrough head-mounted display incorporating the same	Expired (National Phased)	08-Jul-2016	16-Feb-2017
US10089791		US15/393256	US	Predictive augmented reality assistance system	Active	29-Dec-2016	02-Oct-2018
US9659381		US14/605249	US	Real time texture mapping for augmented reality system	Active	26-Jan-2015	23-May-2017
N/A	WO2016122973	PCT/US2016/014453	WO	Real time texture mapping	Expired (National Phased)	22-Jan-2016	04-Aug-2016

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9585581		US14/870900	US	Real-time biometric detection of oscillatory phenomena and voltage events	Active	30-Sep-2015	07-Mar-2017
US9578399		US14/467700	US	Remote sensor access and queuing	Active	25-Aug-2014	21-Feb-2017
US9978174		US15/393257	US	Remote sensor access and queuing	Active	29-Dec-2016	22-May-2018
N/A	WO2016032899	PCT/US2015/046321	WO	Remote sensor access and queuing	Expired (National Phased)	21-Aug-2015	03-Mar-2016
US9599825		US14/870871	US	Visual indicator for transparent display alignment	Active	30-Sep-2015	21-Mar-2017
N/A	WO2017059137	PCT/US2016/054545	WO	Visual indicator for transparent display alignment	Expired (National Phased)	29-Sep-2016	06-Apr-2017
US9625724		US14/477687	US	Retractable display for head mounted device	Active	04-Sep-2014	18-Apr-2017
N/A	WO2016036645	PCT/US2015/047683	WO	Retractable display for head mounted device	Expired (National Phased)	31-Aug-2015	10-Mar-2016

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9727977		US14/584855	US	Sample based color extraction for augmented reality	Active	29-Dec-2014	08-Aug-2017
N/A	WO2016109250	PCT/US2015/066643	WO	Sample based color extraction for augmented reality	Expired (National Phased)	18-Dec-2015	07-Jul-2016
		US62/120776	US	Visual gestures for a head mounted device	Pending	25-Feb-2015	
US9652047		US15/052775	US	Visual gestures for a head mounted device	Active	24-Feb-2016	16-May-2017
N/A	WO2016138178	PCT/US2016/019418	WO	Visual gestures for a head mounted device	Expired (National Phased)	24-Feb-2016	01-Sep-2016
US9799142		US14/461264	US	Spatial data collection	Active	15-Aug-2014	24-Oct-2017
N/A	WO2016025732	PCT/US2015/045084	WO	Spatial data collection	Expired (National Phased)	13-Aug-2015	18-Feb-2016
US9830395		US14/461266	US	Spatial data processing	Active	15-Aug-2014	28-Nov-2017
N/A	WO2016025808	PCT/US2015/045233	WO	Spatial data processing	Expired (National Phased)	14-Aug-2015	18-Feb-2016

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9536355		US15/080414	US	Thermal detection in an augmented reality system	Active	24-Mar-2016	03-Jan-2017
		US62/163046	US	Threat identification system	Expired	18-May-2015	
US9619712		US15/158498	US	Threat identification system	Active	18-May-2016	11-Apr-2017
US9864910		US15/448285	US	Threat identification system	Active	02-Mar-2017	09-Jan-2018
N/A	WO2016187352	PCT/US2016/033149	WO	Threat identification system	Expired (National Phased)	18-May-2016	24-Nov-2016
US9865058		US14/184294	US	Three-dimensional mapping system	Active	19-Feb-2014	09-Jan-2018
US10755416	US20180012364	US15/711317	US	Three-dimensional mapping system	Active	21-Sep-2017	25-Aug-2020
	EP3108457	EP15752437.2	EP	Three-dimensional mapping system	Withdrawn	18-Feb-2015	28-Dec-2016
	US20200349715	US16/923010	US	THREE-DIMENSIONAL MAPPING SYSTEM	Pending	07-Jul-2020	05-Nov-2020

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
N/A	WO2015126951	PCT/US2015/016389	WO	Three-dimensional mapping system	Expired (National Phased)	18-Feb-2015	27-Aug-2015
		US62/441249	US	User input validation and verification for augmented and mixed reality experiences	Expired	31-Dec-2016	
US10564720	US20180188807	US15/807032	US	User input validation and verification for augmented and mixed reality experiences	Active	08-Nov-2017	18-Feb-2020
US9535496		US13/840268	US	Visual gestures	Active	15-Mar-2013	03-Jan-2017
US10585473	US20170083089	US15/372270	US	Visual gestures	Active	07-Dec-2016	10-Mar-2020
N/A	WO2014151031	PCT/US2014/024796	WO	Visual gestures	Expired (National Phased)	12-Mar-2014	25-Sep-2014
US10212000		US15/659180	US	Computer vision based activation	Active	25-Jul-2017	19-Feb-2019
US10652041		US16/238203	US	Computer vision based activation	Active	02-Jan-2019	12-May-2020
		US62/025916	US	Design Pro Easy Motion Animator	Expired	17-Jul-2014	

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
	US20160019708	US14/802813	US	Armature and character template for motion animation sequence generation	Abandoned	17-Jul-2015	21-Jan-2016
US9754399		US14/802820	US	Customized augmented reality animation generator	Active	17-Jul-2015	05-Sep-2017
US10096144		US15/695653	US	Customized augmented reality animation generator	Active	05-Sep-2017	09-Oct-2018
		US62/164276	US	Light-based radar system for augmented reality	Expired	20-May-2015	
US9984508		US15/159763	US	Light-based radar system for augmented reality	Active	19-May-2016	29-May-2018
N/A	WO2016187483	PCT/US2016/033375	WO	Light-based radar system for augmented reality	Expired (National Phased)	19-May-2016	24-Nov-2016
US9383819		US13/908621	US	Manipulation of virtual object in augmented reality via intent	Active	03-Jun-2013	05-Jul-2016

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9996983		US15/171762	US	Manipulation of virtual object in augmented reality via intent	Active	02-Jun-2016	12-Jun-2018
AU2014275184	AU2014275184	AU2014275184	AU	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	23-Jun-2016
EP3005682	EP3005682	DE602014073226.7	DE	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	09-Dec-2020
EP3005682	EP3005682	EP14807097.2	EP	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	09-Dec-2020
EP3005682	EP3005682	EP14807097.2	FR	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	09-Dec-2020
EP3005682	EP3005682	EP14807097.2	GB	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	09-Dec-2020
EP3005682	EP3005682	EP14807097.2	IE	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	09-Dec-2020

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		715233	NZ	Manipulation of virtual object in augmented reality via intent	Abandoned	02-Jun-2014	
JP5985116		JP20160518381	JP	Manipulating virtual objects in augmented reality via intention	Granted	02-Jun-2014	06-Sep-2016
1017307590000	1020160016955	10-2015-7037170	KR	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	20-Apr-2017
N/A	WO2014197387	PCT/US2014/040538	WO	Manipulation of virtual object in augmented reality via intent	Expired (National Phased)	02-Jun-2014	11-Dec-2014
		US62/114175	US	Removable face shield for augmented reality device	Expired	10-Feb-2015	
	US20160227868	US15/018009	US	Removable face shield for augmented reality device	Abandoned	08-Feb-2016	11-Aug-2016
N/A	WO2016130462	PCT/US2016/016963	WO	Removable face shield for augmented reality device	Expired (National Phased)	08-Feb-2016	18-Aug-2016

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		US62/441219	US	Attention, comprehension, and drowsiness monitoring via head mounted device supporting augmented and mixed reality experiences	Expired		
US10660570	US20180184974	US15/807026	US	Attention, comprehension, and drowsiness monitoring via head mounted device supporting augmented and mixed reality experiences	Active	08-Nov-2017	26-May-2020
		US62/120808	US	Augmented reality content creation			
	US20160247324	US15/043959	US	Augmented reality content creation	Pending	15-Feb-2016	25-Aug-2016
N/A	WO2016153628	PCT/US2016/017974	WO	Augmented reality content creation	Expired (National Phased)	15-Feb-2016	29-Sep-2016
	US20200074672	US16/114772	US	Determining a pose of an object from rgb-d images	Pending	28-Aug-2018	05-Mar-2020

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US10812422	US20190068529	US15/692764	US	Directional augmented reality system	Pending	31-Aug-2017	20-Oct-2020
		US17/011,549	US	Directional augmented reality system	Pending	03-Sep-2020	
		US62/312813	US	Eye tracking via transparent near eye lens	Expired	24-Mar-2016	
	US20170277259	US15/468470	US	Eye tracking via transparent near eye lens	Abandoned	24-Mar-2017	28-Sep-2017
	US20180267615	US15/464194	US	Gesture-based graphical keyboard for computing devices	Pending	20-Mar-2017	20-Sep-2018
	US20170251945	US15/059129	US	Low-noise multi-channel voltage recording device	Pending	02-Mar-2016	07-Sep-2017
		US62/395226	US	Peripheral device for head-mounted display	Expired	15-Sep-2016	
US10656731	US20180074599	US15/699494	US	Peripheral device for head-mounted display	Active	08-Sep-2017	19-May-2020
		US62/488538	US	Peripheral device for head-mounted display	Expired	21-Apr-2017	

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US10663729	US20180074329	US15/699507	US	Peripheral device for head-mounted display	Active	08-Sep-2017	26-May-2020
US10714050	US20190295496	US15/927187	US	REDUCING LATENCY IN AUGMENTED REALITY (AR) DISPLAYS	Active	21-Mar-2018	14-Jul-2020
	US20200410953	US16/927726	US	REDUCING LATENCY IN AUGMENTED REALITY (AR) DISPLAYS	Pending	13-Jul-2020	31-Dec-2020
	EP3543840	EP19163859.2	EP	Reducing latency in augmented reality displays	Pending	19-Mar-2019	25-Sep-2019
		US62/777474	US	Adaptive Viewports for a Hyperfocal Viewport (HVP) display	Expired	10-Dec-2018	
N/A	WO2020123561	PCT/US2019/065551	WO	ADAPTIVE VIEWPORTS FOR HYPERVOCAL VIEWPORT (HVP) DISPLAYS	Pending	10-Dec-2019	18-Jun-2020
	US20200183174	US16/709787	US	ADAPTIVE VIEWPORTS FOR HYPERVOCAL VIEWPORT (HVP) DISPLAYS	Pending	10-Dec-2019	11-Jun-2020

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		US62/790458	US	Non-uniform sub-pupil reflectors and methods in Optical Waveguides for AR, HMD and HUD applications	Expired	09-Jan-2019	
N/A	WO2020146683	PCT/US2020/012995	WO	NON-UNIFORM SUB-PUPIL REFLECTORS AND METHODS IN OPTICAL WAVEGUIDES FOR AR, HMD AND HUD APPLICATIONS	Pending	09-Jan-2020	16-Jul-2020
	US20200225400	US16/739103	US	Non-uniform sub-pupil reflectors and methods in Optical Waveguides for AR, HMD and HUD applications	Pending	09-Jan-2020	16-Jul-2020
US10698562		US16/399376	US	Systems and Methods for Providing a User Interface for an Environment that Includes Virtual Objects	Active	30-Apr-2019	30-Jun-2020
	US20200348820	US16/915703	US	SYSTEMS AND METHODS FOR PROVIDING A USER	Pending	29-Jun-2020	05-Nov-2020

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
				INTERFACE FOR AN ENVIRONMENT THAT INCLUDES VIRTUAL OBJECTS			
US10867220	US20200364519	US16/414696	US	Systems and Methods for Providing a User Interface for an Environment that Includes Virtual Objects	Active	16-Jan-2019	15-Dec-2020
		US17/095177	US	SYSTEMS AND METHODS FOR GENERATING COMPOSITE SETS OF DATA FROM DIFFERENT SENSORS		11-Nov-2020	
N/A	WO2020154196	PCT/US2020/014114	WO	Systems and Methods For Generating Composite Depth Images Based on Signals From an Inertial Sensor	Pending	17-Jan-2020	30-Jul-2020
US10686980		US16/254574	US	Systems and Methods For Generating Composite Depth	Active	22-Jan-2019	16-Jun-2020

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
				Images Based on Signals From an Inertial Sensor			
	US20200322542	US16/899398	US	Systems and Methods For Generating Composite Depth Images Based on Signals From an Inertial Sensor	Pending	11-Jun-2020	08-Oct-2020
	US20200183152	US16/214142	US	Optical hyperfocal reflective systems and methods, and augmented reality and/or virtual reality displays incorporating same	Pending	10-Dec-2018	11-Jun-2020
N/A	WO2020123018	PCT/US2019/055198	WO	Optical hyperfocal reflective systems and methods, and augmented reality and/or virtual reality displays incorporating same	Pending	08-Oct-2019	18-Jun-2020

EXHIBIT A TO THE
PATENT SALE AGREEMENT

PATENT ASSIGNMENT

This patent assignment ("Assignment") is entered into as of May 14, 2021, by and between RPX Corporation, a Delaware corporation, with principal place of business at Four Embarcadero Center, Suite 4000, San Francisco, CA 94111 ("Seller"), and Facebook Technologies, LLC, a Delaware limited liability company, with offices at 1601 Willow Road, Menlo Park, CA 94025 ("Buyer").

For good and valuable consideration, the receipt of which is hereby acknowledged, Seller hereby assigns to Buyer, Seller's entire right, title, and interest throughout the world in and to:

(a) the issued patents and patent applications identified on Schedule 1 hereto and any issued patent or patent application that directly or indirectly claims or is amended to claim priority to any of the above, in whole or in part,

(b) to the extent not included in (a), all issued patents, rights to inventions, and pending and future applications for patents under U.S. law or regulation or of any foreign country with respect to the patentable inventions from which such issued patents or pending patent applications arise, including without limitation utility patents, utility models, design patents, invention certificates, provisionals, continuations, divisionals, continuations-in-part, reexaminations, reissues, extensions and renewals, in all countries of the world, as well as any patents and patent applications to which any of the foregoing directly or indirectly claim priority, in whole or in part (subcategories (a) and (b) collectively, (the "Assigned Patents");

(c) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under or on account of, the Assigned Patents, including, without limitation, all causes of action and other enforcement rights for damages, injunctive relief, and any other remedies of any kind for past, current, and future infringement; and

(d) all rights to collect royalties or other payments under or on account of the Assigned Patents and any of the foregoing subcategory (c).

The terms and conditions of this Assignment will inure to the benefit of Buyer, its successors, assigns, and other legal representatives and will be binding upon Seller, its successors, assigns, and other legal representatives.

In the event of any conflict between the terms of this Patent Assignment and that Patent Sale Agreement between the Seller and Buyer dated May 14, 2021, the Patent Sale Agreement will govern. Notwithstanding anything to the contrary, nothing in this Agreement shall purport to

grant, and the term "Assigned Patents" shall not include, any rights under any patents and patent applications that are broader in scope than those rights granted to Seller under that Patent Rights Purchase and Assignment Agreement by and between Seller and Daqri, LLC, dated June 15, 2020 (the "RPX-Daqri Agreement"), a copy of which has been provided by Seller to Buyer prior to the Effective Date of this Assignment.

Seller:

RPX Corporation

By: _____

Name: Dan McCurdy

Title: Chief Executive Officer

Date: May 14, 2021

Buyer:

Facebook Technologies, LLC

By: Michael L. Johnson

Name: Michael L. Johnson

Title: Vice President & Assistant Secretary

Date: May 14, 2021

SCHEDULE 1 TO THE PATENT ASSIGNMENT

PATENTS AND PATENT APPLICATIONS

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9773349		US14/184523	US	Active parallax correction	Active	19-Feb-2014	26-Sep-2017
	EP3108288	EP15752367.1	EP	Active parallax correction	Withdrawn	18-Feb-2015	28-Dec-2016
N/A	WO2015126939	PCT/US2015/016375	WO	Active parallax correction	Expired (National Phased)	18-Feb-2015	27-Aug-2015
US10026230		US15/085097	US	Augmented point cloud for a visualization system and method	Active	30-Mar-2016	17-Jul-2018
US9898844		US14/145458	US	Augmented reality content adapted to changes in real world space geometry	Active	31-Dec-2013	20-Feb-2018
	EP3090411	EP14876769.2	EP	Augmented reality content adapted to space geometry	Withdrawn	17-Dec-2014	09-Nov-2016

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
N/A	WO2015102904	PCT/US2014/070823	WO	Augmented reality content adapted to space geometry	Expired (National Phased)	17-Dec-2014	09-Jul-2015
		US62/235018	US	Bidirectional holographic lens	Expired	30-Sep-2015	
US10110883		US15/283163	US	Bidirectional holographic lens	Active	30-Sep-2016	23-Oct-2018
N/A	WO2017059379	PCT/US2016/055038	WO	Bidirectional holographic lens	Expired (National Phased)	30-Sep-2016	06-Apr-2017
		US62/339748	US	Biometric based false input detection for a wearable computing device	Expired	20-May-2016	
US10387719		US15/600104	US	Biometric based false input detection for a wearable computing device	Active	19-May-2017	20-Aug-2019
US9262865		US13/840048	US	Content creation tool	Active	15-Mar-2013	16-Feb-2016
US9679416		US15/041395	US	Content creation tool	Active	11-Feb-2016	13-Jun-2017
US10147239		US15/617951	US	Content creation tool	Active	08-Jun-2017	04-Dec-2018

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
AU2014235427	AU2014235427	AU2014235427	AU	Content creation tool	Granted	12-Mar-2014	07-Jul-2016
	EP2973356	EP14770112.2	EP	Content creation tool	Pending	12-Mar-2014	20-Jan-2016
6022732	JP6022732	JP2016-501608	JP	Content creation tool	Granted	12-Mar-2014	09-Nov-2016
1017377250000	1020150131358	10-2015-7029881	KR	Content creation tool	Granted	12-Mar-2014	12-May-2017
713294	NZ713294	713294	NZ	Content creation tool	Granted	12-Mar-2014	25-May-2017
N/A	WO2014150980	PCT/US2014/024698	WO	Content creation tool	Expired (National Phased)	12-Mar-2014	25-Sep-2014
US9865093		US15/199570	US	Contextual augmented reality devices collaboration	Active	30-Jun-2016	09-Jan-2018
US10445937		US15/794729	US	Contextual augmented reality devices collaboration	Active	26-Oct-2017	15-Oct-2019
US9639984		US13/909046	US	Data manipulation based on real world object manipulation	Active	03-Jun-2013	02-May-2017
AU2014275191	AU2014275191	AU2014275191	AU	Data manipulation based on real world object manipulation	Granted	02-Jun-2014	24-Aug-2017

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
	EP3005683	EP14807284.6	EP	Data manipulation based on real world object manipulation	Withdrawn	02-Jun-2014	13-Apr-2016
6192817	JP6192817	JP2016-518384	JP	Data manipulation based on real world object manipulation	Granted	02-Jun-2014	06-Sep-2017
1018031680000	1020160016964	10-2015-7037217	KR	Data manipulation based on real world object manipulation	Granted	02-Jun-2014	23-Nov-2017
715232	NZ715232	715232	NZ	Data manipulation based on real world object manipulation	Granted	02-Jun-2014	24-May-2018
N/A	WO2014197394	PCT/US2014/040555	WO	Data manipulation based on real world object manipulation	Expired (National Phased)	02-Jun-2014	11-Dec-2014
US9807383		US15/085084	US	Wearable video headset and method for calibration	Active	30-Mar-2016	31-Oct-2017
US9934587		US15/199832	US	Deep image localization	Active	30-Jun-2016	03-Apr-2018
US10614581	US20180150961	US15/880364	US	Deep image localization	Active	25-Jan-2018	07-Apr-2020

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9406171		US14/467391	US	Distributed aperture visual inertia navigation	Active	25-Aug-2014	02-Aug-2016
	EP3194888	EP15836115.4	EP	Distributed aperture visual inertia navigation	Pending	21-Aug-2015	26-Jul-2017
N/A	WO2016032886	PCT/US2015/046269	WO	Distributed aperture visual inertia navigation	Expired (National Phased)	21-Aug-2015	03-Mar-2016
		US62/114195	US				
US9844119		US15/019031	US	Dynamic lighting for head mounted device	Active	09-Feb-2016	12-Dec-2017
N/A	WO2016130533	PCT/US2016/017133	WO	Dynamic lighting for head mounted device	Expired (National Phased)	09-Feb-2016	18-Aug-2016
US10334240		US15/338049	US	Efficient augmented reality display calibration	Active	28-Oct-2016	25-Jun-2019
US9412205		US14/467428	US	Extracting sensor data for augmented reality content	Active	25-Aug-2014	09-Aug-2016
N/A	WO2016032889	PCT/US2015/046282	WO	Extracting sensor data for augmented reality content	Expired (National Phased)	21-Aug-2015	03-Mar-2016

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		US60/420638	US	Augmented reality registration method based on matching templates generated from an image texture	Expired	22-Oct-2002	
		US60/513725	US	Registrating a specific planar scene using fiducial markers	Expired	22-Oct-2003	
US7343278		US10/692020	US	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Active	22-Oct-2003	11-Mar-2008
US7987079		US12/046389	US	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Active	11-Mar-2008	26-Jul-2011
AT521953	EP1556805	EP2003796236	AT	Tracking a surface in a three-dimensional scene using natural visual features of the surface	Expired	22-Oct-2003	15-Sep-2011
N/A	AU2003298491	AU2003298491	AU	Tracking a surface in a 3-dimensional scene	Lapsed	22-Oct-2003	13-May-2004

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
				using natural visual features of the surface			
EP1556805	EP1556805	EP03796236.2	EP	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Granted	22-Oct-2003	24-Aug-2011
EP1556805	EP1556805	EP03796236.2	FR	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Lapsed	22-Oct-2003	24-Aug-2011
EP1556805	EP1556805	EP03796236.2	GB	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Granted	22-Oct-2003	24-Aug-2011
N/A	JP2006-507722	JP2004-546322	JP	TRACKING A SURFACE IN A 3-DIMENSIONAL SCENE USING NATURAL VISUAL FEATURES OF THE SURFACE	Lapsed (for not responding to the Decision of Rejection)	22-Oct-2003	02-Mar-2006
539632	NZ539632	539632	NZ	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Lapsed	22-Oct-2003	15-May-2008

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		PCT/US03/34292	WO	AUGMENTED REALITY REGISTRATION METHOD BASED ON MATCHING TEMPLATES GENERATED FROM AN IMAGE TEXTURE			
4452272	JP4452272	JP2006-507722	JP	JOINT COMPONENT FRAMEWORK FOR MODELING COMPLEX JOINT BEHAVIOR	Lapsed (for not paying the annuity)	23-Apr-2004	21-Apr-2010
N/A	WO2004038657	PCT/IB2003/006418	WO	Tracking a surface in a 3-dimensional scene using natural visual features of the surface	Expired (National Phased)	22-Oct-2003	06-May-2004
US10649209	US20180011322	US15/206111	US	Optical combiner apparatus	Active	08-Jul-2016	12-May-2020
	US20200233218	US16/845018	US	Optical combiner apparatus	Pending	09-Apr-2020	23-Jul-2020
	US20200278553	US16/877490	US	Optical combiner apparatus	Pending	19-May-2020	03-Sep-2020
N/A	WO2018009885	PCT/US2017/041228	WO	Optical combiner apparatus	Expired (National Phased)	07-Jul-2017	11-Jan-2018

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		US62/355112	US	Near eye diffractive holographic projection method	Expired	27-Jun-2016	
US10444509		US15/635025	US	Near eye diffractive holographic projection method	Active	27-Jun-2017	15-Oct-2019
US9916664		US15/019382	US	Multi-spectrum segmentation for computer vision	Active	09-Feb-2016	13-Mar-2018
US10366495		US15/880886	US	Multi-spectrum segmentation for computer vision	Active	26-Jan-2018	30-Jul-2019
US10488666		US15/893599	US	Optical waveguide devices, methods and systems incorporating same	Active	10-Feb-2018	26-Nov-2019
	US20200049998	US16/658078	US	Optical waveguide devices, methods and systems incorporating same	Pending	19-Oct-2019	13-Feb-2020

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
		US17/168140	US	OPTICAL WAVEGUIDE DEVICES, METHODS AND SYSTEMS INCORPORATING SAME	Case not available/published in PTO	04-Feb-2021	
US8384999		US13/345769	US	Optical modules	Active	09-Jan-2012	26-Feb-2013
US9264479		US14/144359	US	Offloading augmented reality processing	Active	30-Dec-2013	16-Feb-2016
US9672660		US15/041437	US	Offloading augmented reality processing	Active	11-Feb-2016	06-Jun-2017
US9990759		US15/592939	US	Offloading augmented reality processing	Active	11-May-2017	05-Jun-2018
US10586395		US15/974998	US	Remote object detection and local tracking using visual odometry	Active	09-May-2018	10-Mar-2020
	EP3090409	EP14875991.3	EP	Offloading augmented reality processing	Withdrawn	10-Dec-2014	09-Nov-2016
N/A	WO2015102834	PCT/US2014/069536	WO	Offloading augmented reality processing	Expired (National Phased)	10-Dec-2014	09-Jul-2015

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9354702		US13/909042	US	Manipulation of virtual object in augmented reality via thought	Active	03-Jun-2013	31-May-2016
US9996155		US15/144545	US	Manipulation of virtual object in augmented reality via thought	Active	02-May-2016	12-Jun-2018
AU2014275189	AU2014275189	AU2014275189	AU	Manipulation of virtual object in augmented reality via thought	Granted	02-Jun-2014	22-Dec-2016
	EP3005037	EP14808371.0	EP	Manipulation of virtual object in augmented reality via thought	Withdrawn	02-Jun-2014	13-Apr-2016
6040342	JP6040342	JP2016-518383	JP	Manipulation of virtual objects in augmented reality through thinking	Granted	02-Jun-2014	07-Dec-2016
1016940890000	1020160016948	10-2015-7037131	KR	Manipulation of virtual object in augmented reality via thought	Granted	02-Jun-2014	02-Jan-2017
N/A	WO2014197392	PCT/US2014/040552	WO	Manipulation of virtual object in augmented reality via thought	Expired (National Phased)	02-Jun-2014	11-Dec-2014

Patent Number	Publication Number	Application Number	Country	Title	Status	File Date	Publication/Issue Date
US9626801		US14/145567	US	Visualization of physical characteristics in augmented reality	Active	31-Dec-2013	18-Apr-2017
US9558592		US14/461257	US	Visualization of physical interactions in augmented reality	Active	15-Aug-2014	31-Jan-2017
	US20170103581	US15/389095	US	Visualization of physical interactions in augmented reality	Abandoned	22-Dec-2016	13-Apr-2017
	US20170206419	US15/476778	US	Visualization of physical characteristics in augmented reality	Abandoned	31-Mar-2017	20-Jul-2017
	EP3090425	EP14876959.9	EP	Visualization of physical characteristics in augmented reality	Withdrawn	15-Dec-2014	09-Nov-2016
N/A	WO2015102862	PCT/US2014/070298	WO	Visualization of physical characteristics in augmented reality	Expired (National Phased)	15-Dec-2014	09-Jul-2015
N/A	WO2016025697	PCT/US2015/045029	WO	Visualization of physical interactions in augmented reality	Expired (National Phased)	13-Aug-2015	18-Feb-2016

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US10007115	US20170045742	US14/825148	US	Placement of a computer generated display with focal plane at finite distance using optical devices and a see-through head-mounted display incorporating the same	Active	12-Aug-2015	26-Jun-2018
N/A	WO2017027139	PCT/US2016/041588	WO	Placement of a computer generated display with focal plane at finite distance using optical devices and a seethrough head-mounted display incorporating the same	Expired (National Phased)	08-Jul-2016	16-Feb-2017
US10089791		US15/393256	US	Predictive augmented reality assistance system	Active	29-Dec-2016	02-Oct-2018
US9659381		US14/605249	US	Real time texture mapping for augmented reality system	Active	26-Jan-2015	23-May-2017
N/A	WO2016122973	PCT/US2016/014453	WO	Real time texture mapping	Expired (National Phased)	22-Jan-2016	04-Aug-2016

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US9585581		US14/870900	US	Real-time biometric detection of oscillatory phenomena and voltage events	Active	30-Sep-2015	07-Mar-2017
US9578399		US14/467700	US	Remote sensor access and queuing	Active	25-Aug-2014	21-Feb-2017
US9978174		US15/393257	US	Remote sensor access and queuing	Active	29-Dec-2016	22-May-2018
N/A	WO2016032899	PCT/US2015/046321	WO	Remote sensor access and queuing	Expired (National Phased)	21-Aug-2015	03-Mar-2016
US9599825		US14/870871	US	Visual indicator for transparent display alignment	Active	30-Sep-2015	21-Mar-2017
N/A	WO2017059137	PCT/US2016/054545	WO	Visual indicator for transparent display alignment	Expired (National Phased)	29-Sep-2016	06-Apr-2017
US9625724		US14/477687	US	Retractable display for head mounted device	Active	04-Sep-2014	18-Apr-2017
N/A	WO2016036645	PCT/US2015/047683	WO	Retractable display for head mounted device	Expired (National Phased)	31-Aug-2015	10-Mar-2016

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US9727977		US14/584855	US	Sample based color extraction for augmented reality	Active	29-Dec-2014	08-Aug-2017
N/A	WO2016109250	PCT/US2015/066643	WO	Sample based color extraction for augmented reality	Expired (National Phased)	18-Dec-2015	07-Jul-2016
		US62/120776	US	Visual gestures for a head mounted device	Pending	25-Feb-2015	
US9652047		US15/052775	US	Visual gestures for a head mounted device	Active	24-Feb-2016	16-May-2017
N/A	WO2016138178	PCT/US2016/019418	WO	Visual gestures for a head mounted device	Expired (National Phased)	24-Feb-2016	01-Sep-2016
US9799142		US14/461264	US	Spatial data collection	Active	15-Aug-2014	24-Oct-2017
N/A	WO2016025732	PCT/US2015/045084	WO	Spatial data collection	Expired (National Phased)	13-Aug-2015	18-Feb-2016
US9830395		US14/461266	US	Spatial data processing	Active	15-Aug-2014	28-Nov-2017
N/A	WO2016025808	PCT/US2015/045233	WO	Spatial data processing	Expired (National Phased)	14-Aug-2015	18-Feb-2016

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US9536355		US15/080414	US	Thermal detection in an augmented reality system	Active	24-Mar-2016	03-Jan-2017
		US62/163046	US	Threat identification system	Expired	18-May-2015	
US9619712		US15/158498	US	Threat identification system	Active	18-May-2016	11-Apr-2017
US9864910		US15/448285	US	Threat identification system	Active	02-Mar-2017	09-Jan-2018
N/A	WO2016187352	PCT/US2016/033149	WO	Threat identification system	Expired (National Phased)	18-May-2016	24-Nov-2016
US9865058		US14/184294	US	Three-dimensional mapping system	Active	19-Feb-2014	09-Jan-2018
US10755416	US20180012364	US15/711317	US	Three-dimensional mapping system	Active	21-Sep-2017	25-Aug-2020
	EP3108457	EP15752437.2	EP	Three-dimensional mapping system	Withdrawn	18-Feb-2015	28-Dec-2016
	US20200349715	US16/923010	US	THREE-DIMENSIONAL MAPPING SYSTEM	Pending	07-Jul-2020	05-Nov-2020

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N/A	WO2015126951	PCT/US2015/016389	WO	Three-dimensional mapping system	Expired (National Phased)	18-Feb-2015	27-Aug-2015
		US62/441249	US	User input validation and verification for augmented and mixed reality experiences	Expired	31-Dec-2016	
US10564720	US20180188807	US15/807032	US	User input validation and verification for augmented and mixed reality experiences	Active	08-Nov-2017	18-Feb-2020
US9535496		US13/840268	US	Visual gestures	Active	15-Mar-2013	03-Jan-2017
US10585473	US20170083089	US15/372270	US	Visual gestures	Active	07-Dec-2016	10-Mar-2020
N/A	WO2014151031	PCT/US2014/024796	WO	Visual gestures	Expired (National Phased)	12-Mar-2014	25-Sep-2014
US10212000		US15/659180	US	Computer vision based activation	Active	25-Jul-2017	19-Feb-2019
US10652041		US16/238203	US	Computer vision based activation	Active	02-Jan-2019	12-May-2020
		US62/025916	US	Design Pro Easy Motion Animator	Expired	17-Jul-2014	

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	US20160019708	US14/802813	US	Armature and character template for motion animation sequence generation	Abandoned	17-Jul-2015	21-Jan-2016
US9754399		US14/802820	US	Customized augmented reality animation generator	Active	17-Jul-2015	05-Sep-2017
US10096144		US15/695653	US	Customized augmented reality animation generator	Active	05-Sep-2017	09-Oct-2018
		US62/164276	US	Light-based radar system for augmented reality	Expired	20-May-2015	
US9984508		US15/159763	US	Light-based radar system for augmented reality	Active	19-May-2016	29-May-2018
N/A	WO2016187483	PCT/US2016/033375	WO	Light-based radar system for augmented reality	Expired (National Phased)	19-May-2016	24-Nov-2016
US9383819		US13/908621	US	Manipulation of virtual object in augmented reality via intent	Active	03-Jun-2013	05-Jul-2016

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US9996983		US15/171762	US	Manipulation of virtual object in augmented reality via intent	Active	02-Jun-2016	12-Jun-2018
AU2014275184	AU2014275184	AU2014275184	AU	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	23-Jun-2016
EP3005682	EP3005682	DE602014073226.7	DE	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	09-Dec-2020
EP3005682	EP3005682	EP14807097.2	EP	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	09-Dec-2020
EP3005682	EP3005682	EP14807097.2	FR	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	09-Dec-2020
EP3005682	EP3005682	EP14807097.2	GB	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	09-Dec-2020
EP3005682	EP3005682	EP14807097.2	IE	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	09-Dec-2020

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		715233	NZ	Manipulation of virtual object in augmented reality via intent	Abandoned	02-Jun-2014	
JP5985116		JP20160518381	JP	Manipulating virtual objects in augmented reality via intention	Granted	02-Jun-2014	06-Sep-2016
1017307590000	1020160016955	10-2015-7037170	KR	Manipulation of virtual object in augmented reality via intent	Granted	02-Jun-2014	20-Apr-2017
N/A	WO2014197387	PCT/US2014/040538	WO	Manipulation of virtual object in augmented reality via intent	Expired (National Phased)	02-Jun-2014	11-Dec-2014
		US62/114175	US	Removable face shield for augmented reality device	Expired	10-Feb-2015	
	US20160227868	US15/018009	US	Removable face shield for augmented reality device	Abandoned	08-Feb-2016	11-Aug-2016
N/A	WO2016130462	PCT/US2016/016963	WO	Removable face shield for augmented reality device	Expired (National Phased)	08-Feb-2016	18-Aug-2016

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		US62/441219	US	Attention, comprehension, and drowsiness monitoring via head mounted device supporting augmented and mixed reality experiences	Expired		
US10660570	US20180184974	US15/807026	US	Attention, comprehension, and drowsiness monitoring via head mounted device supporting augmented and mixed reality experiences	Active	08-Nov-2017	26-May-2020
		US62/120808	US	Augmented reality content creation			
	US20160247324	US15/043959	US	Augmented reality content creation	Pending	15-Feb-2016	25-Aug-2016
N/A	WO2016153628	PCT/US2016/017974	WO	Augmented reality content creation	Expired (National Phased)	15-Feb-2016	29-Sep-2016
	US20200074672	US16/114772	US	Determining a pose of an object from rgb-d images	Pending	28-Aug-2018	05-Mar-2020

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US10812422	US20190068529	US15/692764	US	Directional augmented reality system	Pending	31-Aug-2017	20-Oct-2020
		US17/011,549	US	Directional augmented reality system	Pending	03-Sep-2020	
		US62/312813	US	Eye tracking via transparent near eye lens	Expired	24-Mar-2016	
	US20170277259	US15/468470	US	Eye tracking via transparent near eye lens	Abandoned	24-Mar-2017	28-Sep-2017
	US20180267615	US15/464194	US	Gesture-based graphical keyboard for computing devices	Pending	20-Mar-2017	20-Sep-2018
	US20170251945	US15/059129	US	Low-noise multi-channel voltage recording device	Pending	02-Mar-2016	07-Sep-2017
		US62/395226	US	Peripheral device for head-mounted display	Expired	15-Sep-2016	
US10656731	US20180074599	US15/699494	US	Peripheral device for head-mounted display	Active	08-Sep-2017	19-May-2020
		US62/488538	US	Peripheral device for head-mounted display	Expired	21-Apr-2017	

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US10663729	US20180074329	US15/699507	US	Peripheral device for head-mounted display	Active	08-Sep-2017	26-May-2020
US10714050	US20190295496	US15/927187	US	REDUCING LATENCY IN AUGMENTED REALITY (AR) DISPLAYS	Active	21-Mar-2018	14-Jul-2020
	US20200410953	US16/927726	US	REDUCING LATENCY IN AUGMENTED REALITY (AR) DISPLAYS	Pending	13-Jul-2020	31-Dec-2020
	EP3543840	EP19163859.2	EP	Reducing latency in augmented reality displays	Pending	19-Mar-2019	25-Sep-2019
		US62/777474	US	Adaptive Viewports for a Hyperfocal Viewport (HVP) display	Expired	10-Dec-2018	
N/A	WO2020123561	PCT/US2019/065551	WO	ADAPTIVE VIEWPORTS FOR HYPERVOCAL VIEWPORT (HVP) DISPLAYS	Pending	10-Dec-2019	18-Jun-2020
	US20200183174	US16/709787	US	ADAPTIVE VIEWPORTS FOR HYPERVOCAL VIEWPORT (HVP) DISPLAYS	Pending	10-Dec-2019	11-Jun-2020

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		US62/790458	US	Non-uniform sub-pupil reflectors and methods in Optical Waveguides for AR, HMD and HUD applications	Expired	09-Jan-2019	
N/A	WO2020146683	PCT/US2020/012995	WO	NON-UNIFORM SUB-PUPIL REFLECTORS AND METHODS IN OPTICAL WAVEGUIDES FOR AR, HMD AND HUD APPLICATIONS	Pending	09-Jan-2020	16-Jul-2020
	US20200225400	US16/739103	US	Non-uniform sub-pupil reflectors and methods in Optical Waveguides for AR, HMD and HUD applications	Pending	09-Jan-2020	16-Jul-2020
US10698562		US16/399376	US	Systems and Methods for Providing a User Interface for an Environment that Includes Virtual Objects	Active	30-Apr-2019	30-Jun-2020
	US20200348820	US16/915703	US	SYSTEMS AND METHODS FOR PROVIDING A USER	Pending	29-Jun-2020	05-Nov-2020

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				INTERFACE FOR AN ENVIRONMENT THAT INCLUDES VIRTUAL OBJECTS			
US10867220	US20200364519	US16/414696	US	Systems and Methods for Providing a User Interface for an Environment that Includes Virtual Objects	Active	16-Jan-2019	15-Dec-2020
		US17/095177	US	SYSTEMS AND METHODS FOR GENERATING COMPOSITE SETS OF DATA FROM DIFFERENT SENSORS		11-Nov-2020	
N/A	WO2020154196	PCT/US2020/014114	WO	Systems and Methods For Generating Composite Depth Images Based on Signals From an Inertial Sensor	Pending	17-Jan-2020	30-Jul-2020
US10686980		US16/254574	US	Systems and Methods For Generating Composite Depth	Active	22-Jan-2019	16-Jun-2020

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				Images Based on Signals From an Inertial Sensor			
	US20200322542	US16/899398	US	Systems and Methods For Generating Composite Depth Images Based on Signals From an Inertial Sensor	Pending	11-Jun-2020	08-Oct-2020
	US20200183152	US16/214142	US	Optical hyperfocal reflective systems and methods, and augmented reality and/or virtual reality displays incorporating same	Pending	10-Dec-2018	11-Jun-2020
N/A	WO2020123018	PCT/US2019/055198	WO	Optical hyperfocal reflective systems and methods, and augmented reality and/or virtual reality displays incorporating same	Pending	08-Oct-2019	18-Jun-2020

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