

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	JONATHAN SEAN KARAFIN	04/26/2019
	BRENDAN ELWOOD BENENSEE	04/26/2019
RECEIVING PARTY DATA		
Name:	LIGHT FIELD LAB, INC.	
Street Address:	699 E. BROKAW ROAD	
City:	SAN JOSE	
State/Country:	CALIFORNIA	
Postal Code:	95112	
PROPERTY NUMBERS Total: 21		
Property Type	Number	
Application Number:	62617284	
Application Number:	62739000	
Application Number:	62818553	
Application Number:	62827776	
Application Number:	62828390	
PCT Number:	US1913310	
PCT Number:	US1913552	
PCT Number:	US1913554	
PCT Number:	US1913556	
PCT Number:	US1913523	
PCT Number:	US1742452	
PCT Number:	US1742275	
PCT Number:	US1742468	
PCT Number:	US1742276	
PCT Number:	US1742470	
PCT Number:	US1742418	
PCT Number:	US1742467	
PCT Number:	US1742679	
PCT Number:	US1742466	

PATENT

Property Type	Number
PCT Number:	US1742462
PCT Number:	US1742469

CORRESPONDENCE DATA

Fax Number:

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.

Email: sacpat@leclairryan.com

Correspondent Name: LECLAIRRYAN

Address Line 1: 400 CAPITOL MALL, SUITE 1500

Address Line 4: SACRAMENTO, CALIFORNIA 95814

ATTORNEY DOCKET NUMBER:	59630.0001
NAME OF SUBMITTER:	SCARLETT PEREIDA
SIGNATURE:	/Scarlett Pereida/
DATE SIGNED:	04/26/2019

Total Attachments: 4

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ASSIGNMENT

WHEREAS, I, the undersigned inventor of residence as listed, have invented certain new and useful improvements as listed on the attached Schedule A, for which an application for United States Letters Patent is made, said applications having been designated as set forth below and filed on or about the date set forth below; and

WHEREAS, Light Field Lab, Inc. (hereinafter referred to as "Assignee"),

with an address of: 699 E. Brokaw Road
San Jose, CA 95112

desires to acquire the entire right, title and interest in and to the inventions, and in and to the said application and any Letters Patent(s) that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I assign to Assignee, all right, title and interest in and to said inventions and in and to said applications and all patents which may be granted therefore, and any and all utility applications, national phase applications, divisional applications, renewal applications, reissues applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, design applications, and any extensions thereof; and I authorize and request the Commissioner of Patents and Trademarks to issue all patents for said inventions, or patents resulting therefrom including any and all issued patents which may have granted or be granted hereafter thereon and all reissues, renewals and reexaminations, insofar as our interest is concerned, to Assignee.

I also assign to Assignee, all right, title and interest in and to the invention disclosed in said applications throughout the world including any foreign countries or treaty/union organizations, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including any and all rights of priority under Patent Cooperation Treaty, Paris Convention, and any and all other International Conventions, Treaties or Agreements, including all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries thereof; and I further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in Assignee.

I will communicate to Assignee any known facts respecting any improvements; and, at the expense of Assignee, I will testify in any legal proceedings, sign all lawful papers,

execute all divisional, continuation, continuation-in-part, reissue and substitute applications, make lawful oaths and declarations, and generally do everything possible to vest title in Assignee and to aid Assignee to obtain and enforce proper protection for said invention in all countries.

This Assignment shall be binding on the parties' successors, assigns and legal representatives.

I hereby grant CHARLES C. YANG, Registration No. 62,059 and JOHN YANG, Registration No. 60,384, and all practitioners with the firm of LeClairRyan, (Customer Number 120663) with an office at 400 Capitol Mall, Suite 1500, Sacramento, CA 95814, the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

The undersigned further declares that all statements made herein of his/her own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful and false statements may jeopardize the validity of the application or any patent issued thereon.

Signature of Inventor:



Inventor(s) Name:

Jonathan Sean Karafin

Residence (city/state/country):

SAN JOSE, CA

Date:

4/26/2019

Signature of Inventor:



Inventor(s) Name:

Brendan Elwood Bevensee

Residence (city/state/country):

San Jose, CA

Date:

4/26/2019

Schedule A

Attorney Docket No.	Application No.	Filing Date	Title
59630.1130	62/617,284	1/14/2018	HOLOGRAPHIC AND DIFFRACTIVE OPTICAL ENCODING SYSTEMS
59630.1300	62/739,000	9/28/2018	HOLOGRAPHIC OBJECT RELAY FOR LIGHT FIELD DISPLAY
59630.1320	62/818,553	3/14/2019	SYSTEMS FOR DIRECTING ENERGY FIELDS FROM SURFACES AT MULTIPLE ANGLES
59630.1330	62/827,776	4/1/2019	4D ENERGY DIRECTING SYSTEMS WITH BEAM-STEERING DEVICES
59630.1340	62/828,390	4/2/2019	4D ENERGY DIRECTING SYSTEMS WITH BEAM-STEERING DEVICES
59630.1162	PCT/US19/013310	1/11/2019	SYSTEMS AND METHODS FOR TRANSVERSE ENERGY LOCALIZATION IN ENERGY RELAYS USING ORDERED STRUCTURES
59630.1192	PCT/US19/013552	1/14/2019	SYSTEMS AND METHODS FOR DIRECTING MULTIPLE 4D ENERGY FIELDS
59630.1232	PCT/US19/013554	1/14/2019	SYSTEMS AND METHODS FOR RENDERING DATA FROM A 3D ENVIRONMENT
59630.1252	PCT/US19/013556	1/14/2019	ORDERED GEOMETRIES FOR OPTOMIZED HOLOGRAPHIC PROJECTION
59630.1272	PCT/US19/013523	1/14/2019	HOLOGRAPHIC AND DIFFRACTIVE OPTICAL ENCODING SYSTEMS
59630.1012	PCT/US17/042452	7/17/2017	HIGH DENSITY ENERGY DIRECTING DEVICE
59630.1022	PCT/US17/042275	7/14/2017	ENERGY PROPAGATION AND TRANSVERSE ANDERSON LOCALIZATION WITH TWO-DIMENSIONAL, LIGHT FIELD AND HOLOGRAPHIC RELAYS
59630.1032	PCT/US17/042468	7/17/2017	ENCODED ENERGY WAVEGUIDES FOR HOLOGRAPHIC SUPER RESOLUTION

Attorney Docket No.	Application No.	Filing Date	Title
59630.1042	PCT/US17/042276	7/14/2017	SELECTIVE PROPAGATION OF ENERGY IN LIGHT FIELD AND HOLOGRAPHIC WAVEGUIDE ARRAYS
59630.1052	PCT/US17/042470	7/17/2017	FOUR-DIMENSIONAL (4D) PLENOPTIC ENERGY SYSTEMS
59630.1062	PCT/US17/042418	7/17/2017	SYSTEM AND METHODS FOR REALIZING TRANSVERSE ANDERSON LOCALIZATION IN ENERGY RELAYS USING COMPONENT ENGINEERED STRUCTURES
59630.1072	PCT/US17/042467	7/17/2017	METHOD FOR CALIBRATION FOR HOLOGRAPHIC ENERGY DEVICES
59630.2107	PCT/US17/042679	7/18/2017	METHOD FOR CALIBRATION FOR HOLOGRAPHIC ENERGY DEVICES
59630.1082	PCT/US17/042466	7/17/2017	HIGH-DENSITY ENERGY DIRECTING DEVICES FOR TWO-DIMENSIONAL, STEREOSCOPIC, LIGHT FIELD AND HOLOGRAPHIC HEAD-MOUNTED DISPLAYS
59630.1092	PCT/US17/042462	7/17/2017	HOLOGRAPHIC SUPERIMPOSITION OF REAL WORLD PLENOPTIC OPACITY MODULATION THROUGH TRANSPARENT WAVEGUIDE ARRAYS FOR LIGHT FIELD, VIRTUAL AND AUGMENTED REALITY
59630.1102	PCT/US17/042469	07/17/2017	SYSTEM AND METHODS OF HOLOGRAPHIC SENSORY DATA GENERATION, MANIPULATION AND TRANSPORT