Luke Whitaker

Mechanical Engineer

Mechanical Engineer with 7+ years of experience with the design and manufacturing of complex electromechanical systems. Familiar with the entire design process, from concept to hands-on prototyping, through to small- and medium-scale production. An expert with 3D CAD programs such as Autodesk Inventor and Solidworks. Self-starter that works well in a fast paced, high stress environment.

Experience

2019-01 - present

Mechanical Design Engineer

Vicarious FPC, Inc.

- Developed several unique camera mount designs for 6-axis robot arms working on an assembly line
- Invented unique "bottomless box" within the first month of employment, which enabled deployment to first customer on time
- Thrived in a small team to meet seemingly impossible deadlines

2015-05 - 2018-12

Senior Mechanical Engineer

Hoverfly Technologies, Inc.

- Designed high-altitude, high-voltage, heavy-lift tethered aircraft for US government and military customers
- Completed design and documentation of 3-axis stabilized camera gimbal with Infrared and 10X optical zoom camera
- Developed revolutionary waterproof tethered UAV system with unique conical landing platform and monolithic design utilizing a single-piece frame/heatsink
- Invented patent-pending constant-tension tether management system critical to the operation of every tethered drone
- Oversaw material selection, manufacturing methods and tolerances for all new designs

2012-09 - 2015-05

UAV Lead Mechanical Engineer

Hoverfly Technologies, Inc.

- Developed world's first commercially available tethered UAV for use in Public Safety and Surveillance applications
- Invented patent-pending non vision-based UAV navigation system for GPS-denied environments
- Designed large scale, high-endurance drone capable of flying for 1 hour on a single charge

2011-09 - 2012-09

Mechanical Engineering Internship

Hoverfly Technologies, Inc.

- Managed production and test flight of custom VTOL UAV systems
- Designed numerous 3D printed and laser cut parts for custom UAVs
- Acquired vital knowledge of manufacturing methods, tolerances, and material properties

Education

2010-08 - 2015-05

University of Central Florida, Orlando, FL

- BS in Mechanical Engineering
- Designed conical twin screw extruder for Senior Design

Personal Info

Address

2342 Longview Drive

San Leandro, CA 94577

Phone

(239) 443-0970

E-mail

lukew1217@gmail.com

Portfolio

www.lw-portfolio.com

LinkedIn

www.linkedin.com/in/lukeness17/

Skills

Product Design and Development

Prototyping (3D printing, CNC machining, etc.)

Design for Manufacturability

Testing & Troubleshooting

FMEA

GD&T

Software

Autodesk Inventor

SolidWorks (CSWA certified)

Eagle PCB

Autodesk Simulation CFD

AutoCAD

Microsoft Office