

MICAH BLACK

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EXPERIENCE:

08/19- PRESENT INNOVATIVE DRIVE CORPORATION, RENO, NV

Current Position: Engineering Manager

Previously: Senior Mechanical Engineer 08/19-11/23

- Managed a multidisciplinary team, 3-6 direct reports, deploying full project lifecycle management (specification, design, engineering, manufacturing) Project examples include:
- Laser endoscope eye surgery device (EyeQ)
 - Managed reusable device design and documentation through 510(k) FDA submission and approval
 - Process was 5 months faster than main competitor (Endo Opticks)
 - Successfully shrank technology the size of a mini fridge into a hand-piece form factor
- Angioplasty balloon pulsing device, (Cagent)
 - Managed prototype updates and feasibility testing for successful completion of Phase 1 on time and under budget
- Micron accuracy, laser-chip assembly machines (Fluxus), project manager
 - Prepared client meetings, directed project tasks for successful completion of 2 pieces of capital equipment designed to increase manufacturing throughput 300% or more
- Ear otoscope, Phase 0 project feasibility, (Spiral TX)
 - Managed feasibility initiatives and client presentations leading to successful development contract winning bid
- Eyenovia Gen 2.0-3.0 Devices and fixtures
 - 3.0 device project, designed and managed rapid 3 month development of new drug reservoir manufacturing system
 - Expedite bonus received for successful completion within 90 day accelerated project schedule
 - Primary design engineer for multiple leak testing systems, (Vial adapter, PCS Reservoir 4 station) which allowed for successful DV testing of multiple medical devices
 - Managed design and fabrication of Qsweep testing fixtures, resulting in complete validation of ejector assembly Mfg line
- Suture loading Device (Muruho), lead design engineer
 - Rapid 4-month development, 5K assemblies produced for customer, resulting in listed inventor on issued patent US-11399823

01/18- 11/18 ADDITIVE INDUSTRIES, HAWTHORNE, CA

Position: Service and Support Engineer

- Worked onsite at SpaceX to successfully implement (MetalFAB1) powder bed fusion systems, provided first line of support and training
- Largest 3D-printed metal part known at the time created from machines I supported, modified and managed

01/12 - 2017 CONSULTING PRODUCT DEVELOPMENT / FABRICATION, LOS ANGELES, CA

Position: Consulting Product Development

PLY Products (2012-2019)

- Launch of PLY Products Inc, Developed the PLY90 - (over 15,000 assemblies shipped, six figure revenue)

Mechanical Engineering Consulting (multiple clients) (2012-2017)

- Design and fabrication of components for 3d printing, jigs, fixtures, cyclone prototype, caps, tool holders, measuring fixtures etc.

Client: Revisit (Sept 2014-May 2016)

- Managed complete design and manufacturing process for Revisit iPhone 6 and 6+ cases (over 300K revenue)

Client: Summit Series (Sept 2012-July 2013)

- Assisted design and build team with engineering knowledge and manufacturing resources for facility projects

Client: Imagility Inc/ Garrett Brown (Jan 2012-July 2012)

- Collaborated with Steadicam inventor Garrett Brown, designed and built four operational prototypes for testing

Client: Tiffen (Feb 2012-June 2012)

- Design of new camera tilt sub-system, Delivered completed design, analysis, and CAD drawings

06/08 - 01/12 EQUIPOIS INC, LOS ANGELES, CA

Position: Mechanical Design Engineer II - R&D Department

X-Ar Human Arm support system

- Project lead of X-Ar human arm support system through alpha prototyping and successful marketing launch

Universal Mounting System

- Managed universal mounting system from conception through manufacturing

S2 Ring Gimbal Architecture

- Translated observations and customer needs into actionable designs for R&D team, resulting in listed inventor on 2 issued patents

Position: Mechanical Engineer - Applications Engineering Department

- Managed engineering implementation of ZeroG systems at major manufacturing facilities across USA including Boeing, Toyota, John Deere and GE

01/06 - 05/08 LOYOLA MARYMOUNT UNIVERSITY, LOS ANGELES, CA

Position: Rapid Prototyping Lab Manager

- Managed the lab equipment and scheduling and assisted 60+ students on design projects

Position: Mechanical Engineering CAD Teacher (Solidworks)

- Designed course materials, prepared lectures, assigned and graded homework for over 60 students.

EDUCATION:

Loyola Marymount University, Los Angeles CA

Bachelor of Science in Engineering

Major: Mechanical Engineering

Minor: Animation

EIT Certificate

Graduate level course work:

Product Design Methods, Elements of Design, Independent Study-Product Design

SKILLS:

Professional:

Project Management, Team Management, Medical device development, ISO 13485, capital equipment development
Intellectual property, Patents 4 issued, multiple pending

Engineering:

Product Development, SolidWorks, GD&T, DFM/DFA

Fabrication/Prototyping:

CNC machining, rapid prototyping, welding