

Patrick M. Petrossian

934 El Dorado St. Monrovia, CA 91016 Cell (626) 241-7460
patrick.petrossian@gmail.com

Objective: Seeking a position related to 3D CAD design, rapid prototyping, fabrication, electrical assembly, SMT PCB, electro-mechanical, optical design and assembly.

Summary: Detail oriented, problem solving, technical professional with focus on bringing up of prototypes. Versatility and attention-to-detail among many aspects of engineering and technical work such as 3D CAD design, PCB assembly, rapid prototyping, prototype fabrication and electrical circuit assembly. (Direct, surface, and flex modeling with Creo and Solidworks)

Experience

iRobot (Previously, Evolution Robotics), Pasadena, CA

02/2011 - Present

Senior Engineering Technician (Electrical and Mechanical)

- Bringing up of prototypes and documenting changes or modifications.
- Assembling robotic prototypes and providing support for in home testing of user prototypes.
- 3D CAD design using SolidWorks 2016 and Creo 3.0. with Windchill data management.
- Mechanical modification to consumer products for production models and revisions.
(Expert with many power tools including rotary tools, drills, and saws)
- R&D product design and fabrication for multiple high profile consumer products.
- Managing Stratasys Dimension, two Fortus 380mc 3D printers, Epilog Laser operation and maintenance.
- Design and iterate complete product prototypes which include moving parts and complex sensors within respective data sheet specifications.
- Fabrication, design, and troubleshooting of electro-mechanical prototype assemblies.
- Circuit board assembly for 0201 SMT- through hole. (Expert level chip rework and soldering)
- Design and prototype complex IR/Optical odometry assemblies.
- Design and builds test fixtures for optical sensor, laser ODOA, gyro/accelerometer calibration.
- Creating BOMs, detailed assembly instructions, and design documentation.
- Designing test fixtures/ jigs for precision circuit board ICT testing.
- Reading, interpreting, and implementing electrical/mechanical engineering drawings.
- Soldering and electrical/mechanical assembly for home, medical, and military robots.
(Including wire harnessing).
- Applying and/or removing thermal paste, heat sinks, and conformal coating.
- Bonding, gluing, 2-part epoxy, composite material forming, sheet metal bending, vinyl wrapping.
- Entry level lathe and milling machine work.
- Testing of electrical circuits and mechanical aspects of prototypes and production models.
- Lab and general workspace organization and maintenance.
- Outfitting lab/ machine shop with essential equipment and supplies.
- Managing and training hardware interns.

Education

Bachelor of Science- University of La Verne School of Physics -Currently Enrolled

General Education- Glendale City College, Pasadena City College – 2008-2014

High School Diploma- Arcadia High School, Arcadia, CA -2004-2008

Technical Skills, Projects, Inventions,

Strong Engineering intuition, leadership/mentoring skills, fabrication/improvisation expert, organization and lab maintenance.

Automotive repair and maintenance expert, designing and producing custom iPad mini holder for C-class Mercedes, custom made racing quadcopter with sensitive fine tuning and calibration (Capable of reaching peak speeds of 80-100mph), home maintenance & repair, repairing broken parts for owned items by copying to CAD and 3D printing, entertainment/security system setup, all around handyman, implementing electronic systems into cars, hacking devices. **-References available upon request**

