

**Joshua A. Vasquez**  
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**Current Address**

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**Permanent Address**

2095 Galbreth Road  
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**Education**

Harvey Mudd College, Claremont, CA  
B.S. Engineering, anticipated May 2014

**Research**

Lab for Autonomous and Intelligent Robotics (LAIR) researcher

- designed, programmed, and machined rotating sonar mount for underwater ROV
- co-authored: *Towards Three-Dimensional Underwater Mapping Without Odometry*

**Work Experience**

Robotics Choice Lab Class Co-developer, Summer 2011

- developed underlying software architecture in ROS for student lab exercises
- designed and fabricated class robot platform

Bosch Research and Technology Center Robotics Hardware Intern, Summer 2012

- Developed software drivers for MEMS sensors under the ROS framework

Autonomous Vehicles Class Co-developer and Teaching Team Tutor

- Redesigned class robot PCB
- Lead Class Tutor and Grader (Fall, 2011-2012)
- Lab Proctor (Fall, 2013)

Machine Shop Proctor, Fall 2012 - Fall 2013

- Assist Students and Clinic teams in safe cnc and manual machine usage

Digital Design Textbook Source Code Co-Author

- developed source code examples for ARM-based microprocessor textbook

**Honors**

Eugene H. Kopp Scholarship Recipient

**Technical Skills**

- embedded Linux, ROS, C, C++, Arduino, System Verilog, Python, Solidworks, EAGLE, PADS
- proficiency with 2-axis CNC Mill, manual mill, manual lathe, Epilog Laser Cutter

**Club Activities**

HMC Fabrication Studio Club President, Combat Robotics

**Personal Projects**

detailed descriptions available at [joshuavasquez.com](http://joshuavasquez.com)

- Fabricated Composite Quadcopter
- cnc-machined two-axis gantry

**Hobbies**

Rock Climbing, Hiking, Learning Guitar, 3D Modeling for Papercraft Costume-Making