Legged Robot Actuator and Sensor Design Position

The Hybrid Robotics Group is looking for enthusiastic masters and undergraduate students to design and build a small 3D bipedal legged robotic platform. The work involves choosing motors, amplifiers, encoders, vision sensors, and embedded processors, and interfacing all of these. The student will design interfacing electronics and size motors, amplifiers, battery packs to meet power requirements while keeping within the weight constraints. We will draw inspiration from novel leg designs such as the MIT Cheetah, ATRIAS, CASSIE, Minitaur, Delta Hopper, Jeroba, GOAT leg, etc. This position will involve working with Prof. Koushil Sreenath and his PhD student(s).

Qualifications:
1. Current Junior, Senior or Masters student in Mechanical Engineering / Electrical Engineering and Computer Science.
2. Experience with choosing electric motors and amplifiers, encoders, and embedded processors.

Good to have:
1. PCB Layout and Fabrication.
2. Experience with 3D printing.

Who we are:
Our research lies at the intersection of applied Nonlinear Control and Hybrid Dynamic Robotics. Our goal is to design controllers for achieving dynamic, fast, energy-efficient, and robust maneuvers on hybrid and underactuated systems such as legged and aerial robots. See hybrid-robotics.berkeley.edu for more details.

Joining:
If you’d like to get hands-on experience in this exciting research area, please (i) email Ayush Agrawal at ayush.agrawal@berkeley.edu with subject “LRASD Position”. (ii) Attach a resume that lists your interests and technical strengths, past courses, and projects. (iii) In your email include a brief list of bullet points on why you are a good fit for this position.