

KEVIN HONG



Hometown: Irvine, CA

Hobbies: Gym, Swim, Mechanical
Keyboards

Why UCLA ECE?

I chose UCLA ECE because of the school's academic rigor, flourishing student life, and relevant clubs to my interests. In addition, ECE Fast Track offers small size classes that support a close and collaborative environment, which further confirmed my decision to go here.

UCLA Involvement

I am involved in the IEEE Open Space Project (OPS). OPS has provided me with an excellent hands-on opportunity to work with breadboarded circuits and Arduino. For example, I recently completed a project that utilizes IR

emitters and receivers to build a distance sensor, causing an LED to brighten or dim depending on the proximity of a nearby object.

Educational & Career Goals

I wish to continue my education in graduate school because I'm eager to pursue a career with a focus on space technology and/or autonomous vehicles. To become knowledgeable in these areas, hands-on experience is needed, and graduate school allows me to conduct personal research. Furthermore, I'm interested in innovating the next generation of technology, and a graduate degree is crucial for that.

Personal Projects

In my free time, I have been working on modeling an electrocardiogram, a device used to help diagnose and monitor conditions affecting the heart. Currently, my design consists of a printed PCB involving OP Amps, INAs, band-pass filters, and more. I incorporated the PCB design with an Arduino and LCD to measure heart rate and display BPM. The Python and Arduino code I have written filters wave signals, detects peaks, and finds the peak intervals, or BPM. In the future, as I continue working on the project, this device will be able to warn users of potential heart diseases and heart attacks by analyzing the heart rate for certain patterns and identifying them.