

# BlueStamp Engineering

**Name:** Maya S.

**Location:** Palo Alto

**Instructor:** Leah Feuerman

**Starter Project:** #1, Mini POV Kit

**Main Project:** #217: Hand Gesture Controlled RC Car

<http://bluestampengineering.com/student-projects/ryan-l/>

<http://bluestampengineering.com/student-projects/christopher-h-2/>

<http://bluestampengineering.com/student-projects/vincent-h/>

## **Major Steps to complete the project:**

1. Make sure all parts have arrived as planned
2. Draw a schematic that shows every wire that will need to be connected.
  - a. Glove Arduino ports/wiring
  - b. RC Car Arduino ports/wiring (wiring to the PCB board)
  - c. How the aluminum plate will be bent
3. Get Flex Sensors functioning **Milestone 1: , record video, post to website**
  - a. Flex sensors should return resistance
  - b. 4 LEDs to represent movements of RC Car, increasing in brightness as the flex sensors bend more
  - c. Arduino code
4. Get Flex Sensors functioning with DC Motors and Servo Motors: **Milestone 2: This is a milestone. Save all design files, record a video, and post to the website.**
  - a. Create one circuit to control all motors
  - b. Model flex sensor combinations with those of RC Car
5. Set up Xbee: **Milestone 3: This is a milestone. Save all design files, record a video, and post to the website.**
  - a. Configure
  - b. Upload latest firmware
  - c. Ensure communication is working
  - d. Get Arduinos to wirelessly communicate
  - e. Create two separate circuits (one for flex, one for motors)
6. Mount all components: **Final Milestone: This is a milestone. Save all design files, record a video, and post to the website.**
  - a. Solder a PCB for flex sensors and attach to glove
  - b. Mount motors and servos onto wood for RC Car
7. Create full documentation, write a blog post describing the system, and post everything on your webpage.