My experience with hardware prior to this class was limited to PC building. I had not tinkered with the actual interaction between components, just worked to understand what purpose each component serves. I’ve built or helped in the building of dozens of computers over my nearly fifteen years of experience, and always enjoyed the process of making, recognizing, and fixing mistakes to finish at the end product of a functioning computer.

So far in this class, I have greatly enjoyed my experiences with the Arduino platform. It seems wide as a puddle, but deep as an ocean. The possibilities seem near limitless with what this little board can accomplish. The only issue I have specifically with the way I was introduced to it in this class is the programming language. We spent a large period of time learning Python and how to structure code within the context of that programming language, but very little if any time was given to learning the syntax of C/C++ that Arduino runs. This was and continues to be a difficult adjustment.

- **Uses for photocell**
  - Detecting when the sun goes down to turn on external house lights
  - Detecting movement in a doorway to play notification someone entered
  - Tracking the sun to optimize solar panel efficiency

- **Uses for button**
  - Turning on/off a light
  - Starting a specific program
  - Playing an audio tone
  - Setting a pattern (repeated presses)

- **Uses for LED**
  - State monitor
  - Intensity monitor
  - Warning indicator
  - Visual timer

I believe that this specific hardware can be used to automate some tasks. I would like to build something that detects movement nearby through the photocell and then engages the servo motor to open a door.