Joseph Sharp Halpin

**CPE301 – SPRING 2018**

Design Assignment 4

**DO NOT REMOVE THIS PAGE DURING SUBMISSION:**

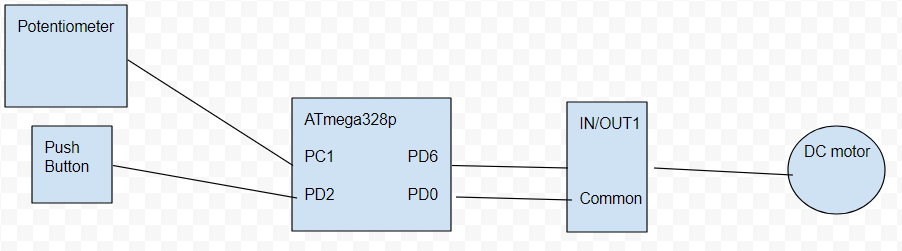
The student understands that all required components should be submitted in complete for grading of this assignment.

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| --- | --- | --- | --- |
| **NO** | **SUBMISSION ITEM** | **COMPLETED (Y/N)** | **MARKS**  **(/MAX)** |
| 1 | COMPONENTS LIST AND CONNECTION BLOCK DIAGRAM w/ PINS |  |  |
| 2. | INITIAL CODE OF TASK 1/A |  |  |
| 3. | INCREMENTAL / DIFFERENTIAL CODE OF TASK 2/B |  |  |
| 3. | INCREMENTAL / DIFFERENTIAL CODE OF TASK 3/C |  |  |
| 3. | INCREMENTAL / DIFFERENTIAL CODE OF TASK 4/D |  |  |
| 3. | INCREMENTAL / DIFFERENTIAL CODE OF TASK 5/E |  |  |
| 4. | SCHEMATICS |  |  |
| 5. | SCREENSHOTS OF EACH TASK OUTPUT |  |  |
| 5. | SCREENSHOT OF EACH DEMO |  |  |
| 6. | VIDEO LINKS OF EACH DEMO |  |  |
| 7. | GOOGLECODE LINK OF THE DA |  |  |
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|  |  |  |  |

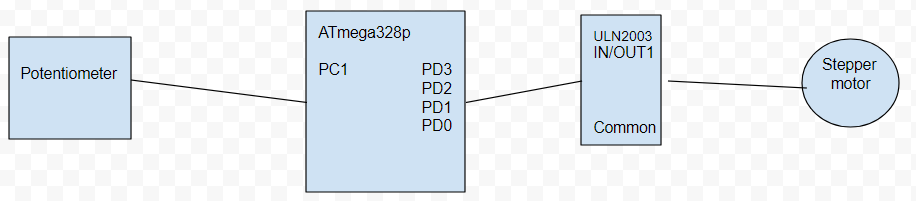
1. **COMPONENTS LIST AND CONNECTION BLOCK DIAGRAM w/ PINS**

ATmega328p Xplained Mini, ULN2003, push button, potentiometer, dc motor, stepper motor, servo motor.

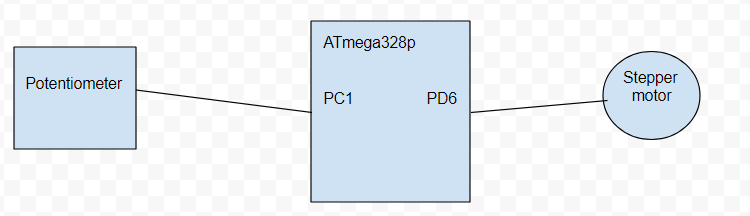
DC motor



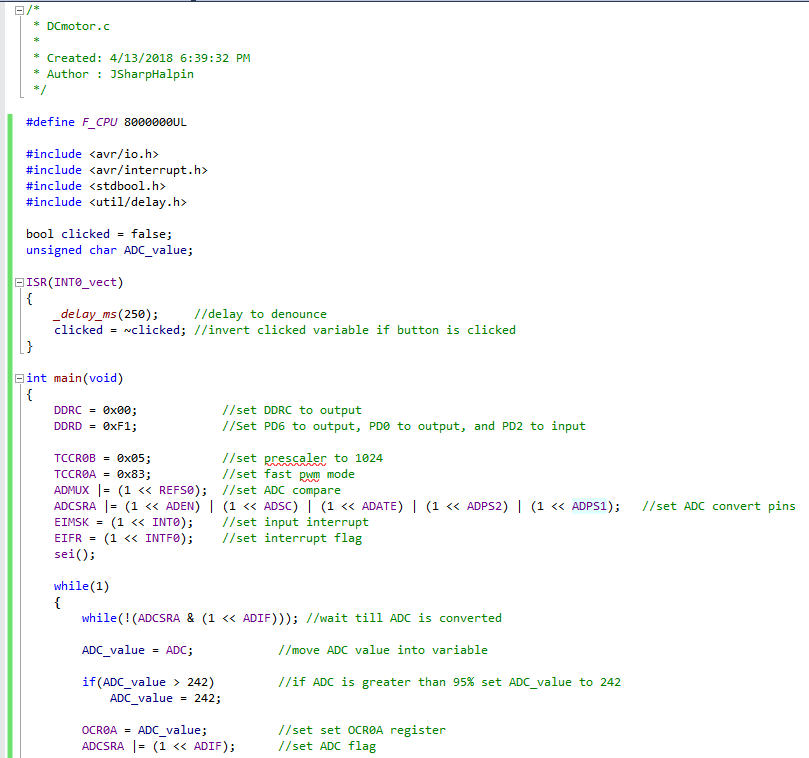
Stepper motor

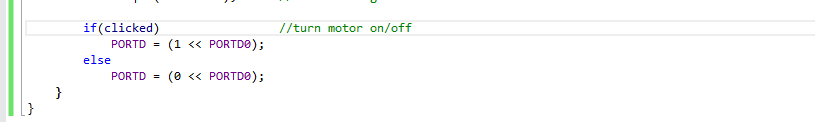


Servo motor

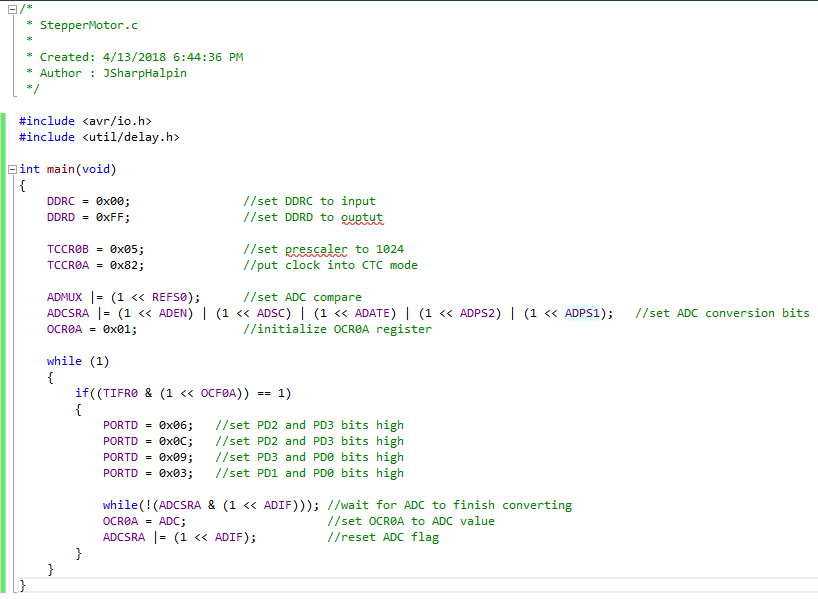


1. **INITIAL/DEVELOPED CODE OF TASK 1**

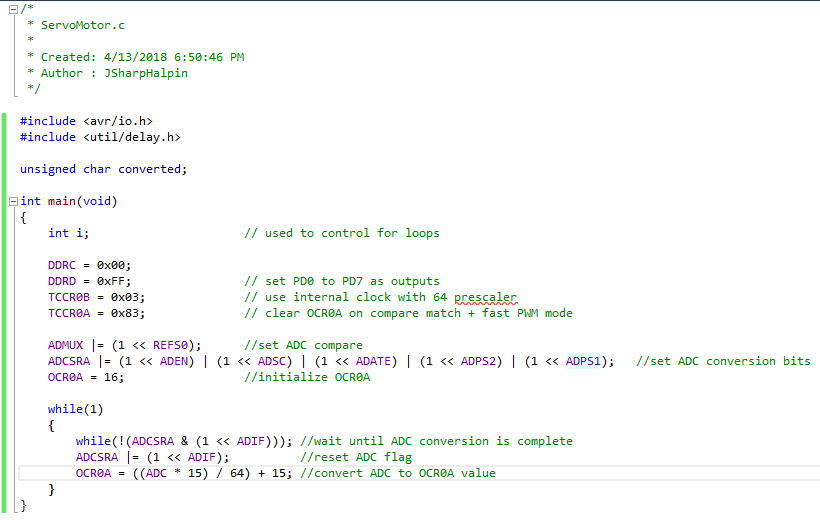




1. **INITIAL/DEVELOPED CODE OF TASK 2**

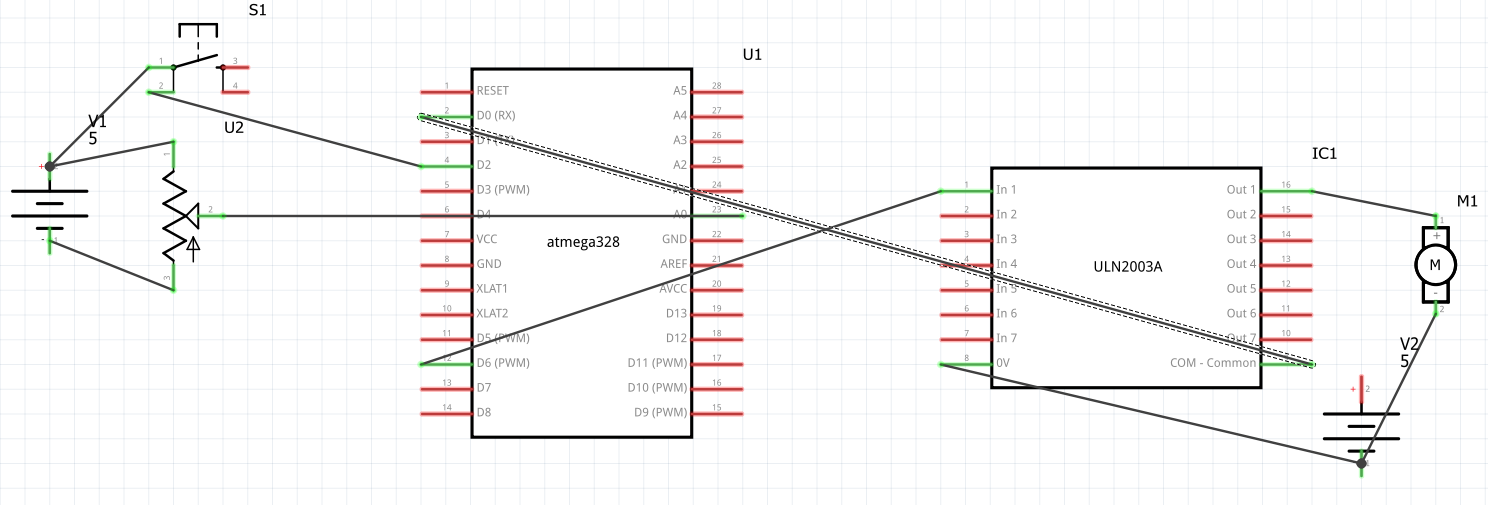
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1. **INITIAL/DEVEOLPED CODE OF TASK 3**

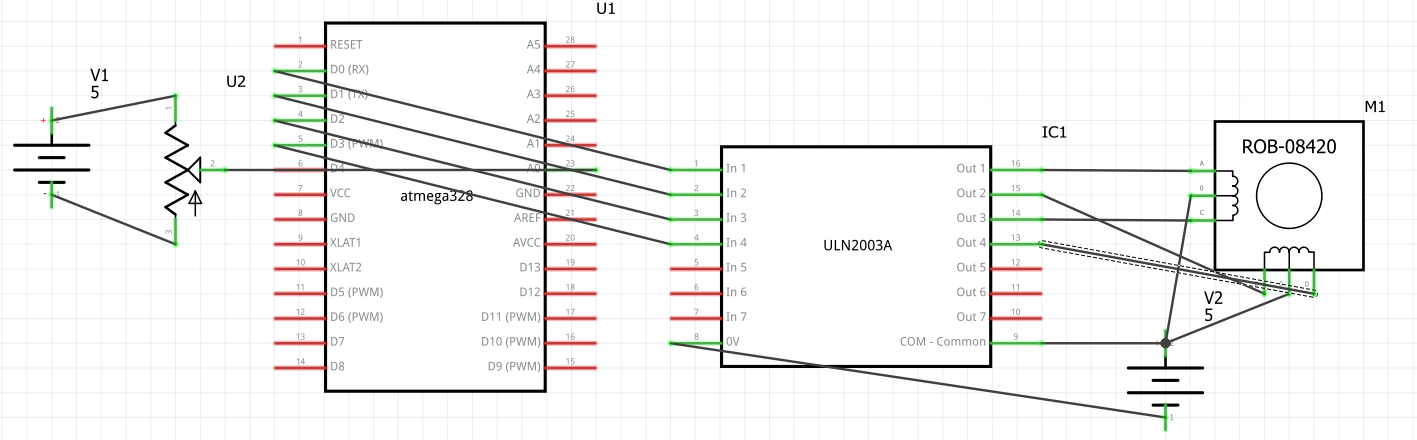
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1. **SCHEMATICS**

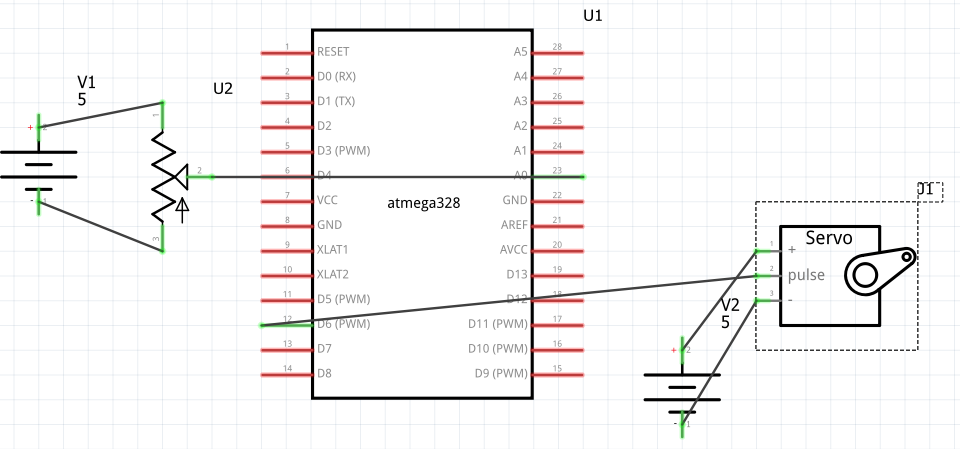
DC motor



Stepper motor

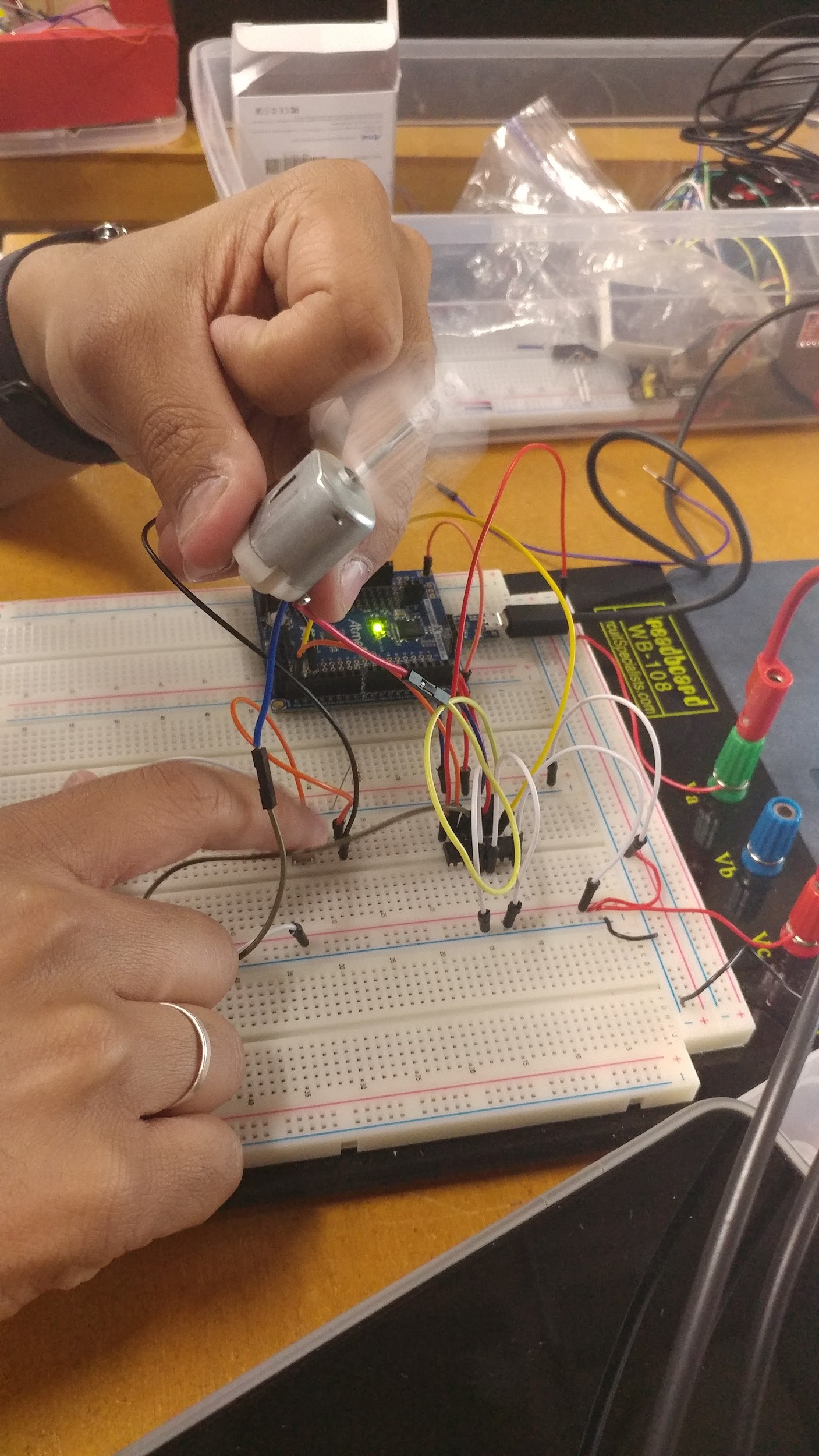


Servo motor

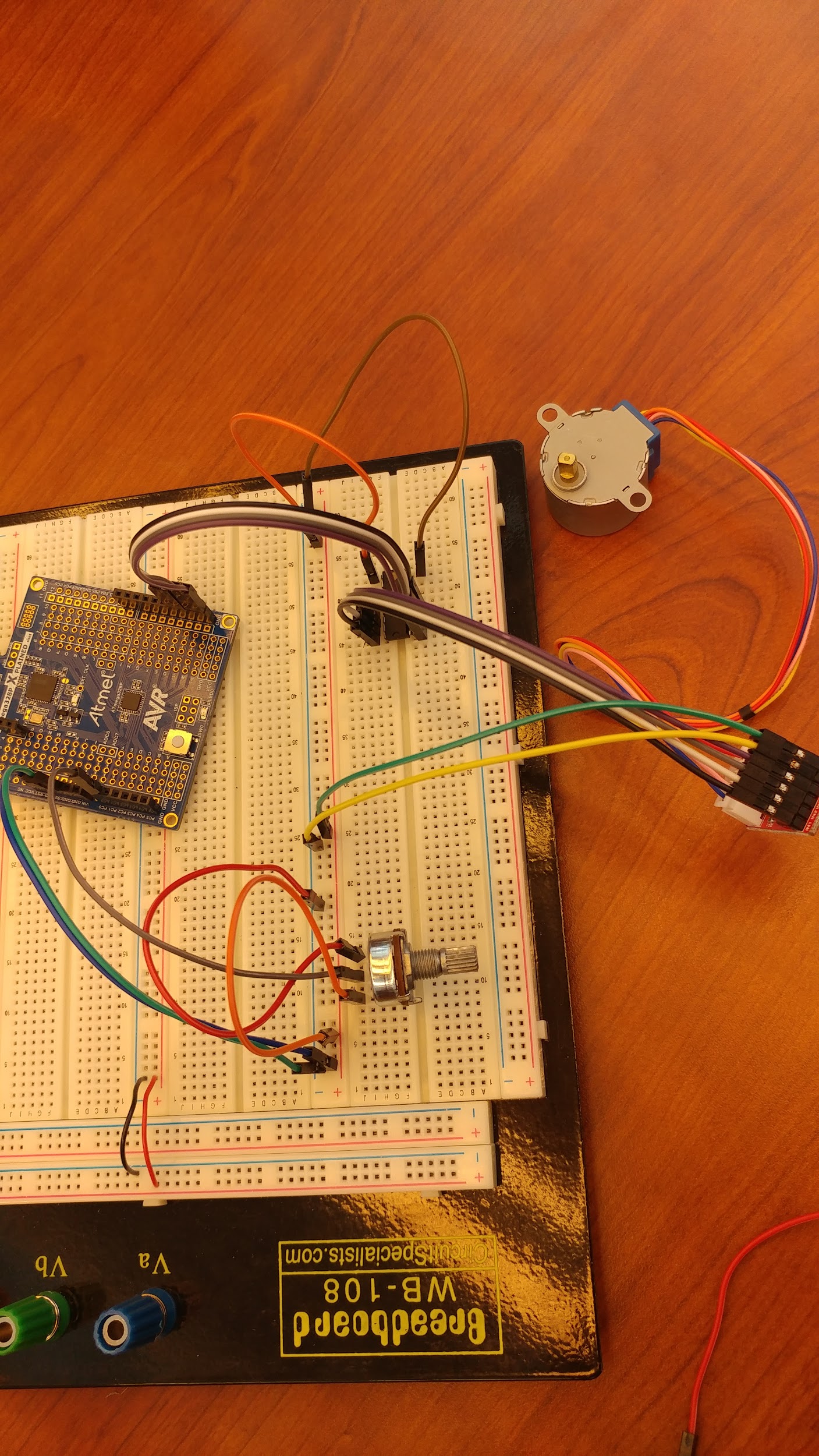


1. **SCREENSHOT OF EACH DEMO (BOARD SETUP)**

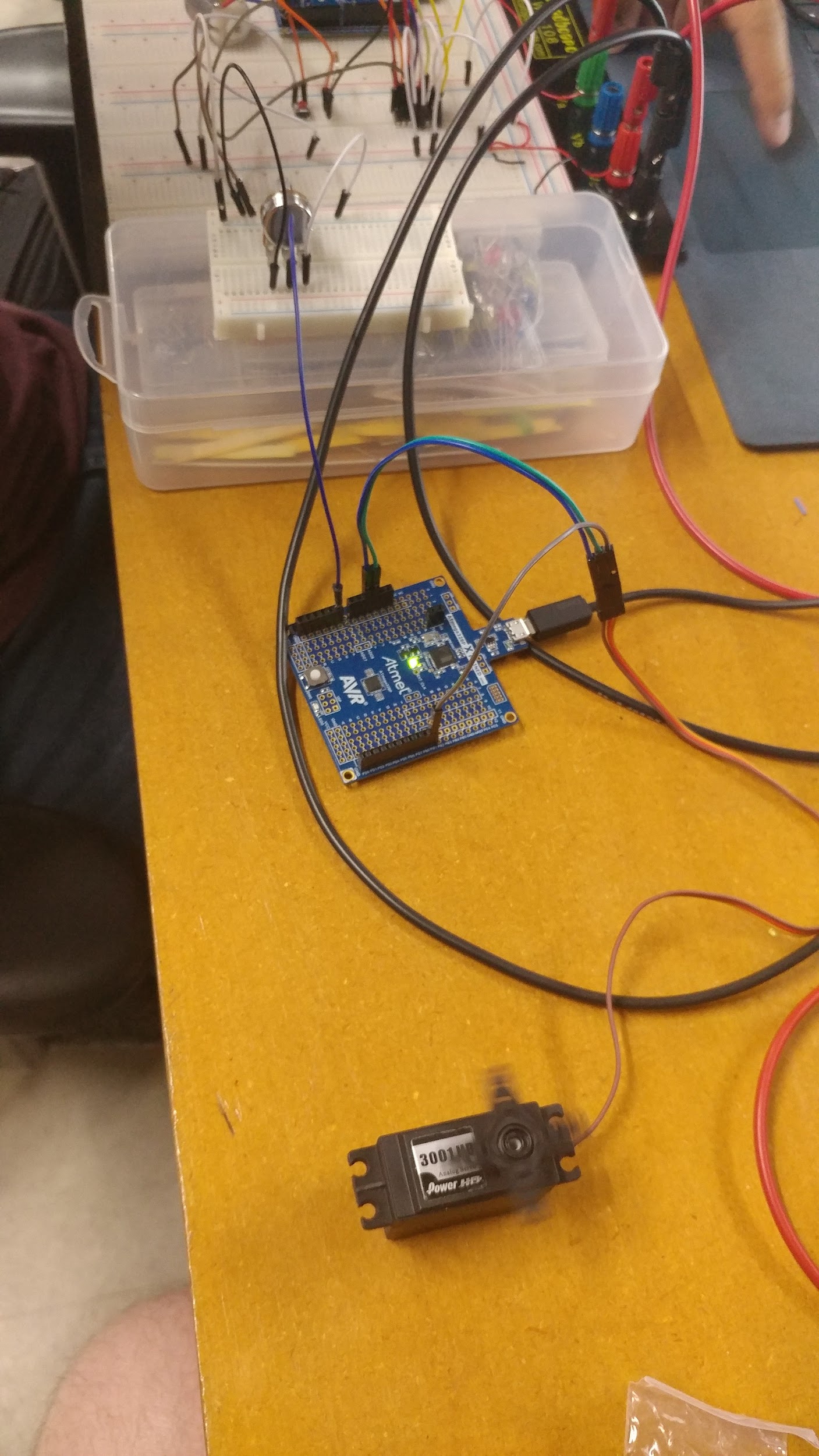
DC motor setup



Stepper motor setup



Servo motor setup



1. **GITHUB LINK OF THIS DA**

<https://github.com/jsharpin/My-Repos>

**Student Academic Misconduct Policy**

<http://studentconduct.unlv.edu/misconduct/policy.html>

“*This assignment submission is my own, original work*”.

Joseph Sharp Halpin