In this assignment, you will be introduced to the various hardware you will be using during this module. The hardware ranges from: Microcontrollers, Sensors, Shields, Motor Drivers, Stepper Motors, Servo Motors, and Power Supplies. All of these are commonly found within CNC machines at various scale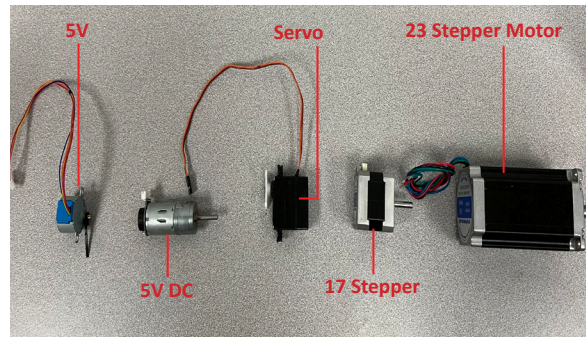s of complexity. To complete this assignment you will need to associate the name of the hardware with the actual component. Shown below is the type of hardware associated with its name, all of this can be found in the Sensors Lab located in the Basement (AB006).
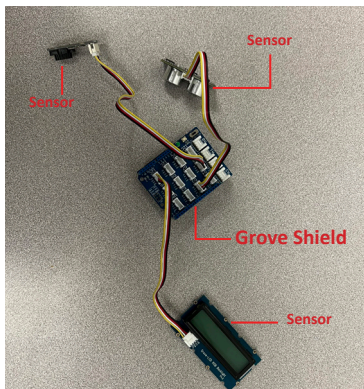
Final Deliverable

Look through and gain an understanding of what each component does and looks like.
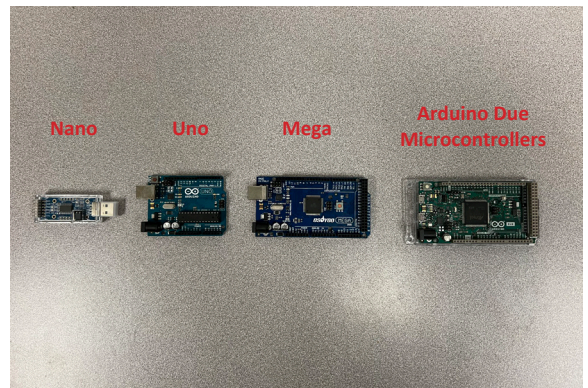
A1- Circuit Hardware

Here are examples of hardware available for use in the Sensors Lab. All of this equipment can be strung together to create moving and adaptable circuits and projects. As an example circuit, take an Arduino Microcontroller (Uno) and attach a Grove Shield + LCD Screen + Ultrasonic Ranger, this combination will allow you to make an electronic measuring tape. (Proceed to M5A2)
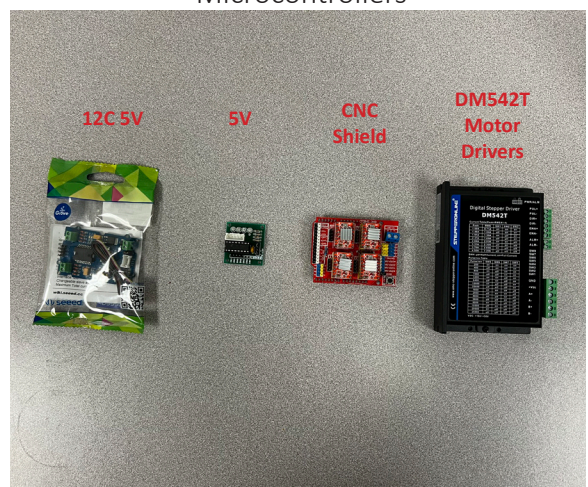

5V|5V DC |Servo|17 Stepper|23 Stepper Motor

Grove Shield + Sensors

Nano|Uno |Mega|Arduino Due Microcontrollers

Variable Power Supply

I2C 5V|5V |CNC Shield|DM542T Motor Drivers