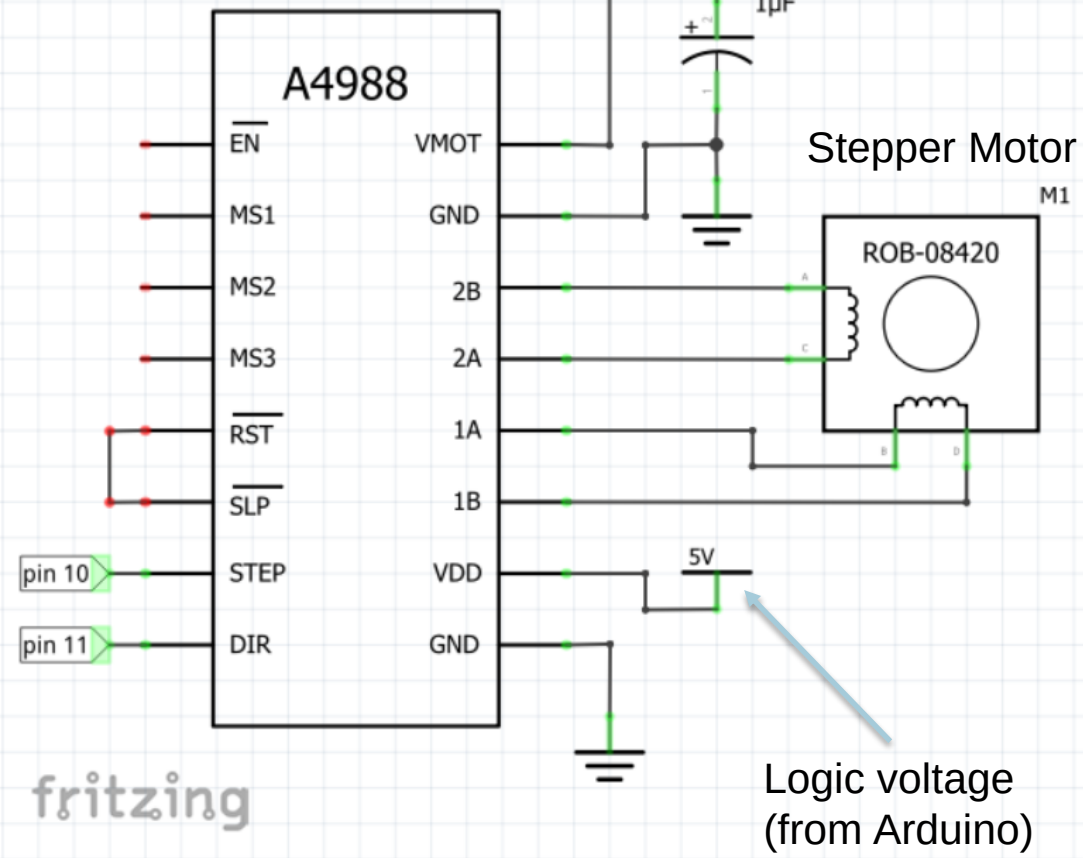
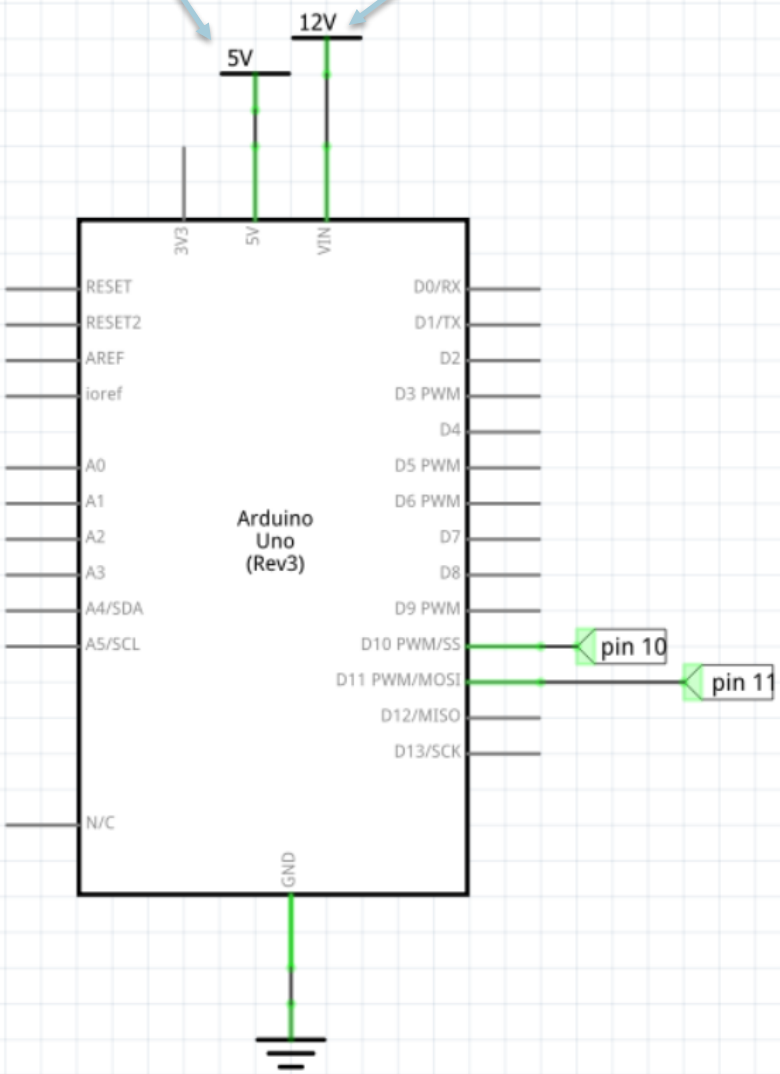
Pololu stepper drivers

Arduino generates 5V with a voltage regulator voltage

Motor voltage to Vin to power Arduino

Motor voltage





Logic voltage (from Arduino)

https://www.pololu.com/product/1182

Stepper driver – Take care

Put a large (at least 47 µF) electrolytic capacitor across motor power (VMOT) and ground somewhere close to the board.

Electrolytic capacitors can explode if they are connected wrong: longer leg = positive; check "-" marking

Connecting or disconnecting a stepper motor while the driver is powered can destroy the driver.

Set the current of the motor – adjust the potentiometer on the Pololu stepper driver

https://www.youtube.com/watch?v=89BHS9hfSUk

Exercise #2 - Moving stepper motors

Try to move the motor using switches or an arduino

- **dir**
  - **0V -> forward**
  - **5V -> backward**
- **step**
  - **1 pulse = 1 step**
  - **1 pulse = 0V->5V->0V**

Advanced:

Try to use a library (provides speed profiles)

- https://www.pjrc.com/teensy/td_libs_AccelStepper.html
- https://github.com/laurb9/StepperDriver