

Ball Mill Grinder Project

MSE RUET

17 Series

Design Criteria

(Control)

Speed Control

Directional Control

Runtime Control

Rest time Control

Total time Control

Multiple Modes for total time control

Components

12V 3A

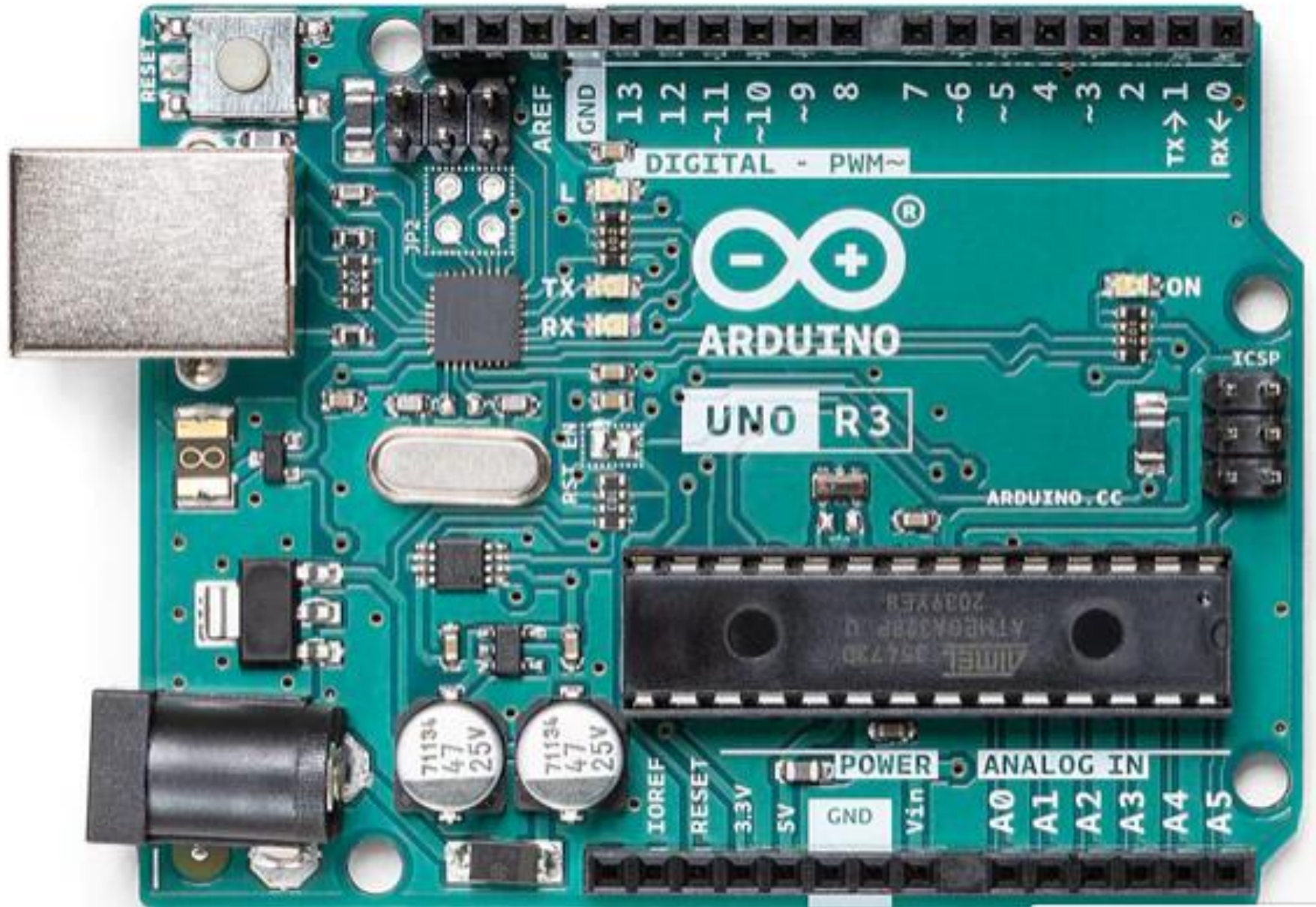


60 RPM 12 V DC motor

Features of 60 RPM High Torque 12 Volt DC Gear Motor:

- 60RPM 12V DC motors with Metal Gearbox and Metal Gears.
- 20000 RPM base motor.
- 6mm Dia shaft with M3 thread hole.
- Length 63 mm without shaft.
- Shaft length 30mm.
- 275gm weight.
- 20 kg cm torque.
- No-load current = 0.15 mA, Load current = upto 4 A(Max).



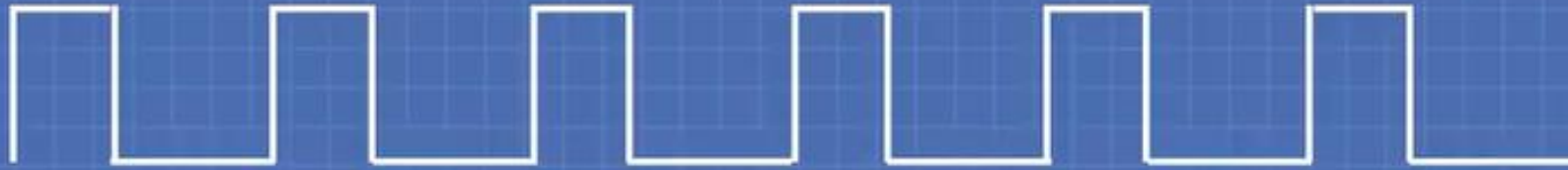


**Arduino
uno r3**

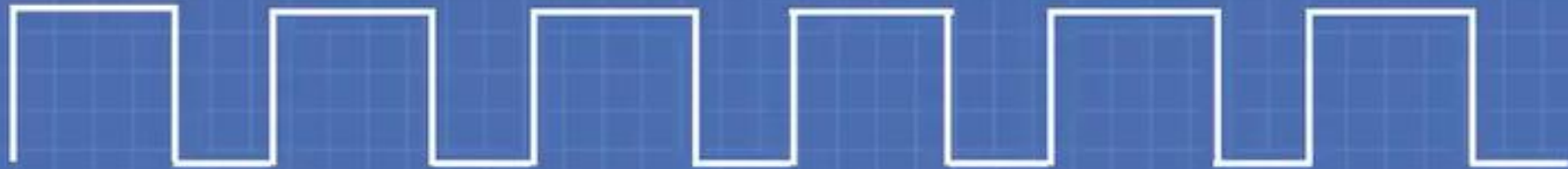
Pulse width module (pwm)



Slow



Faster



Even Faster!

Pulse width module (pwm)

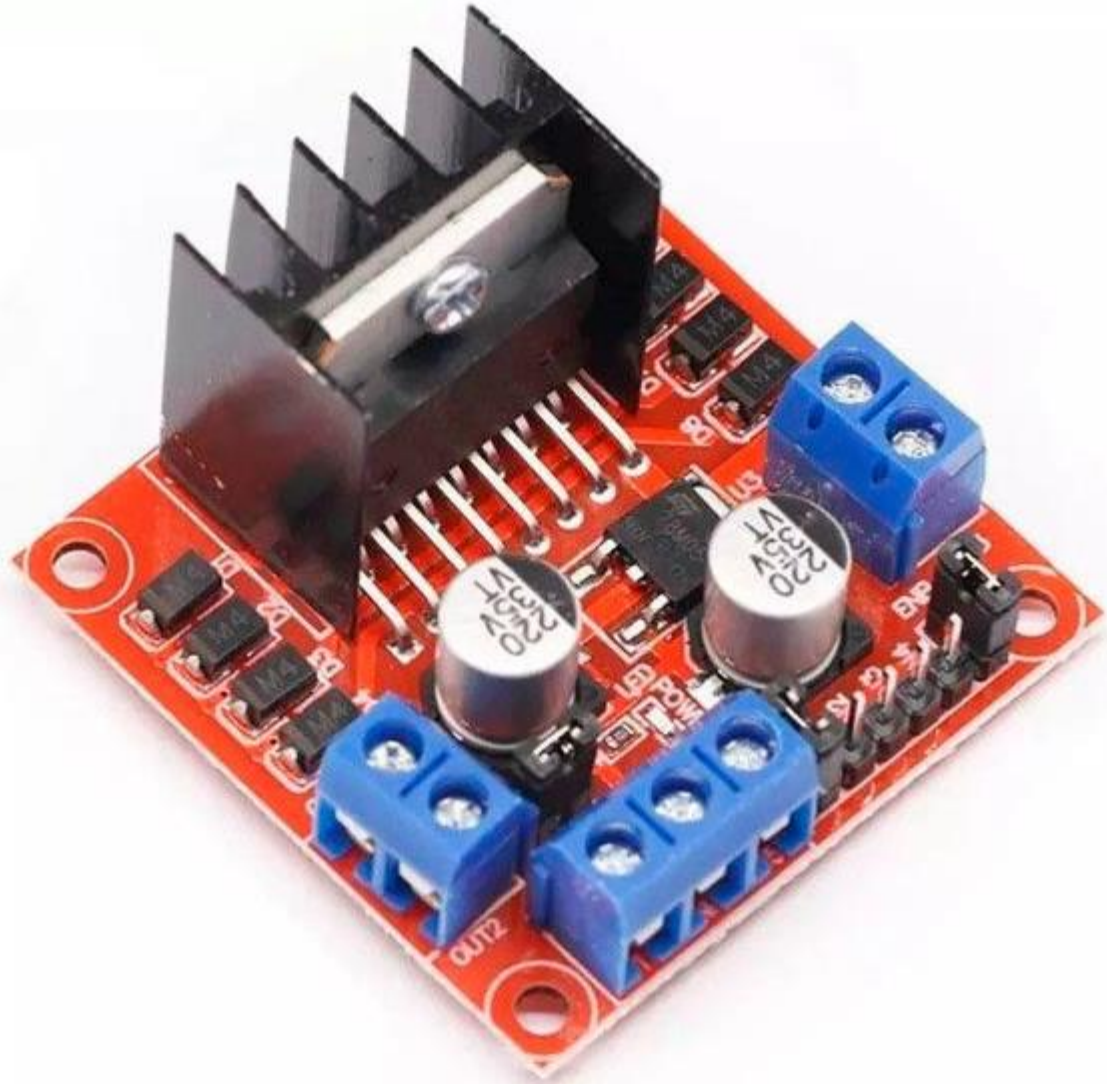


Stop



Full Speed

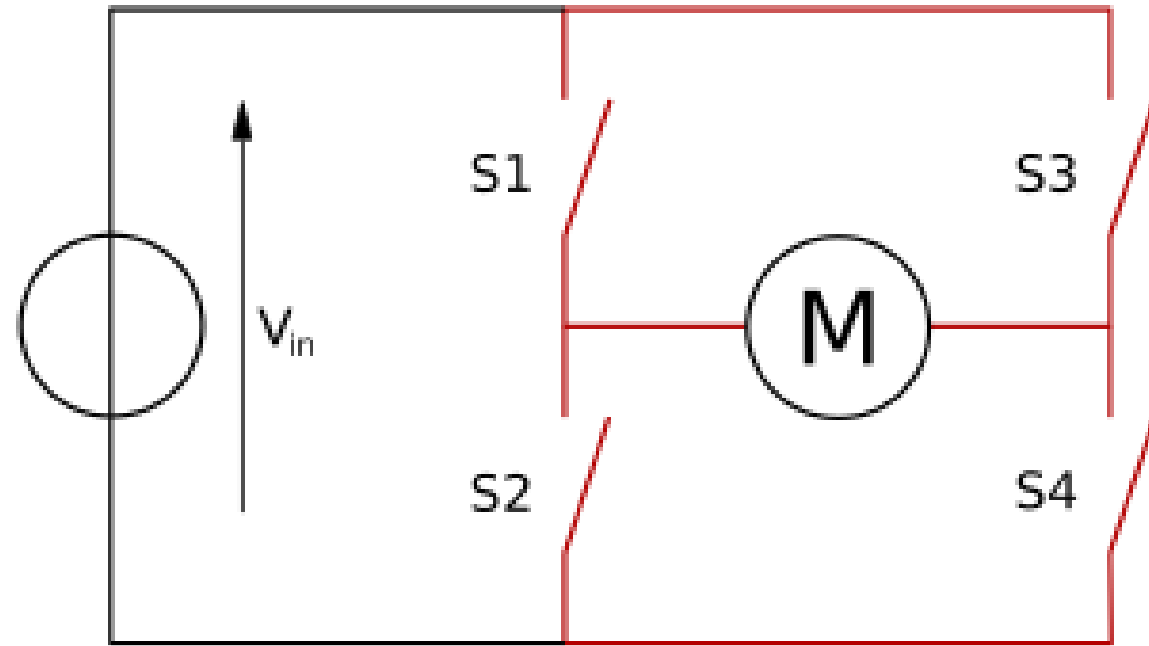
L298N H-Bridge Dual Motor Driver



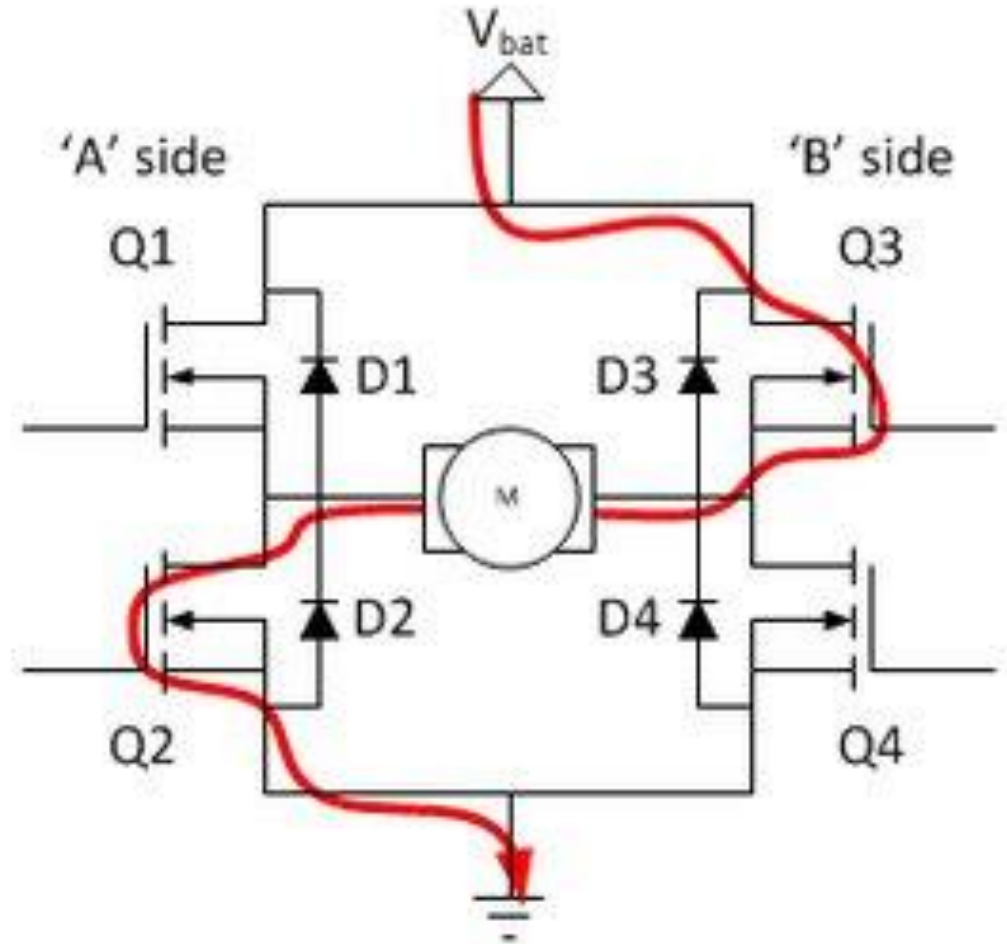
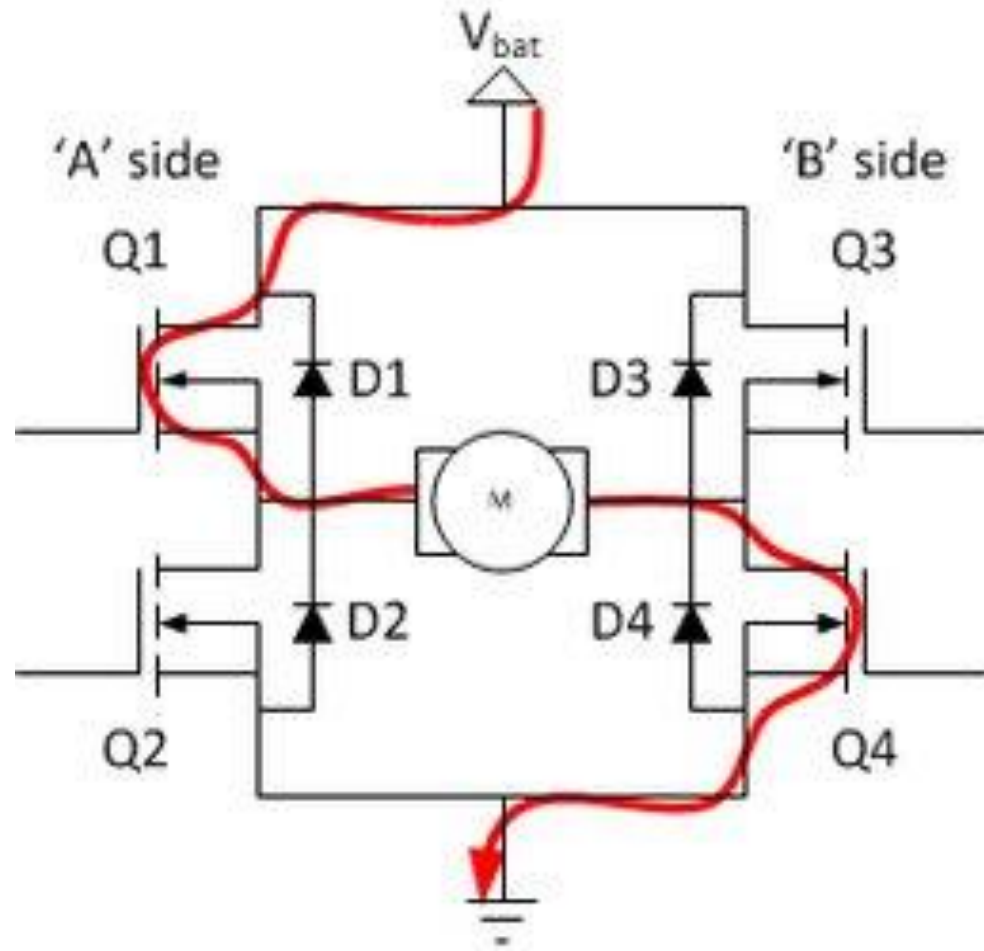
Potentiometer



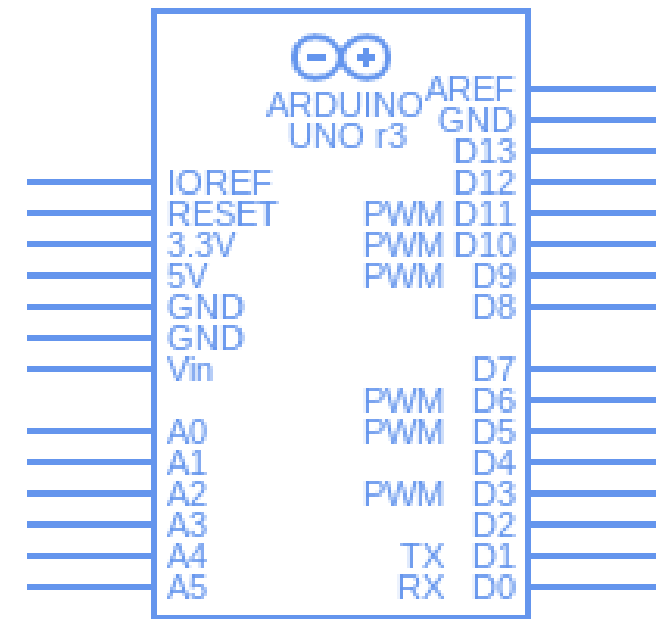
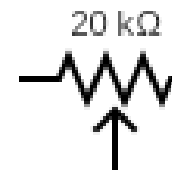
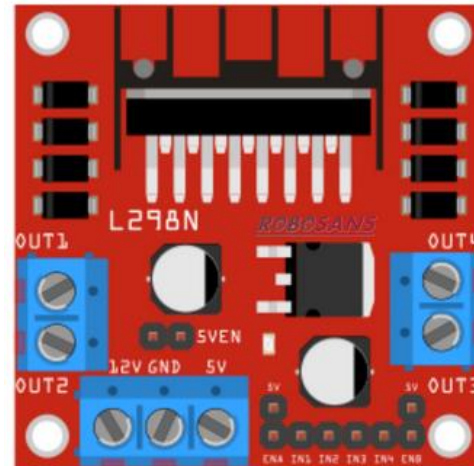
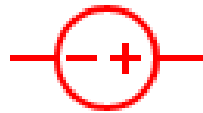
H-Bridge

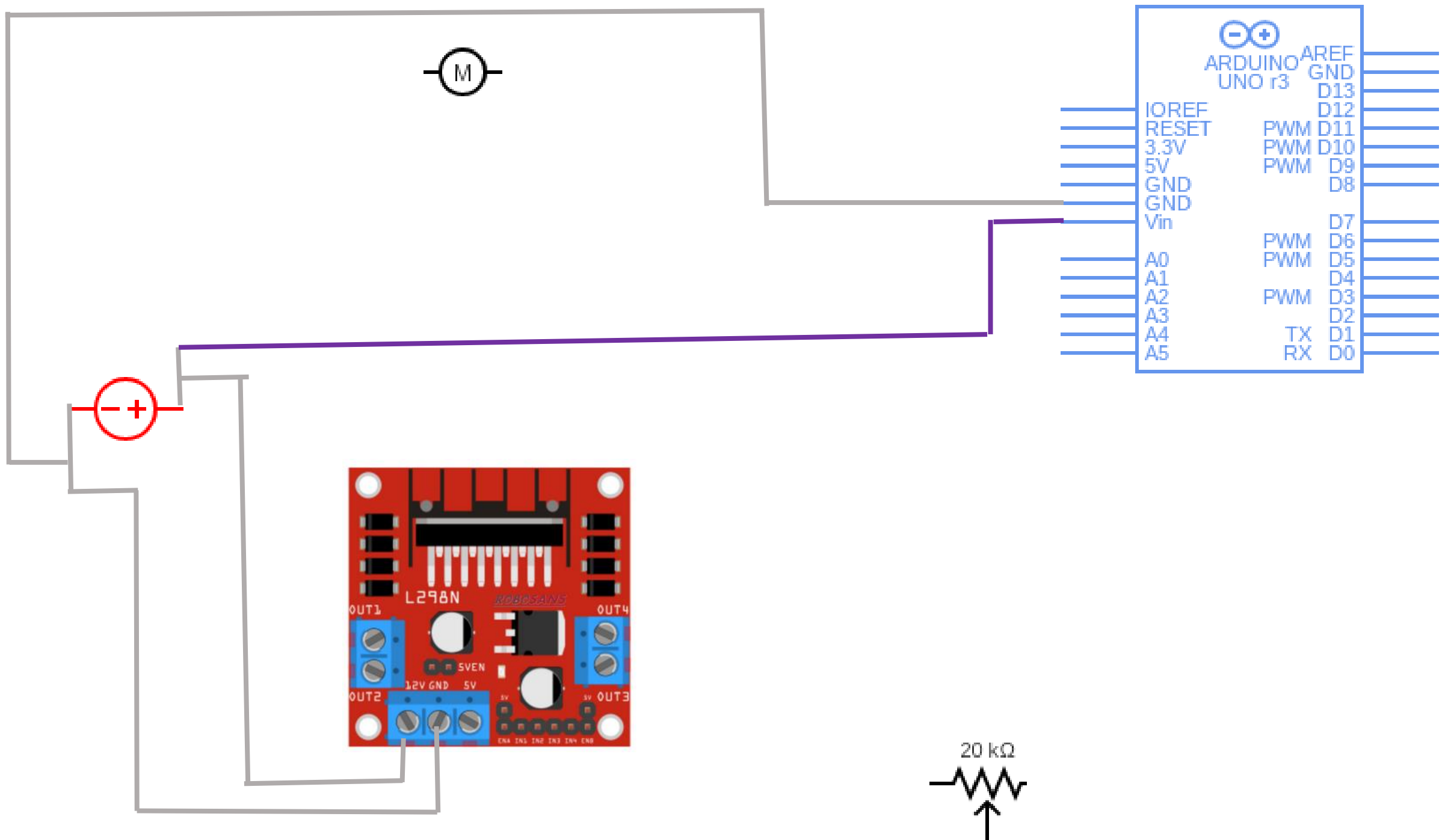


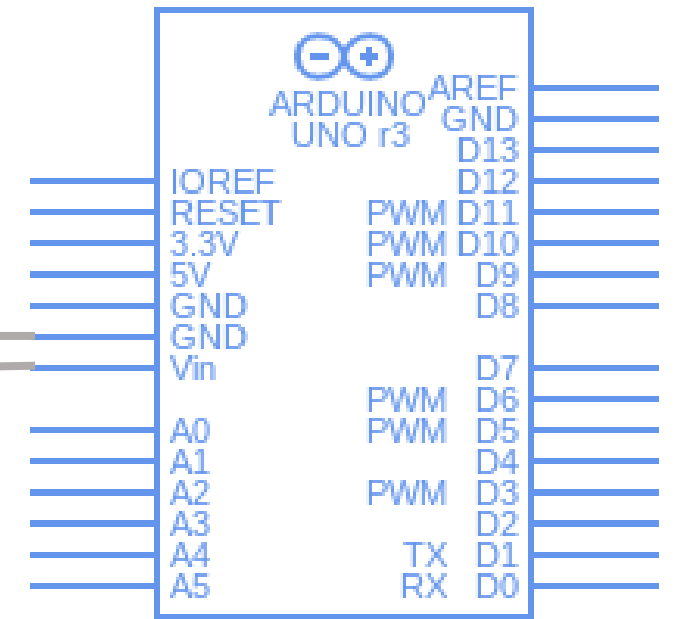
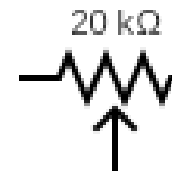
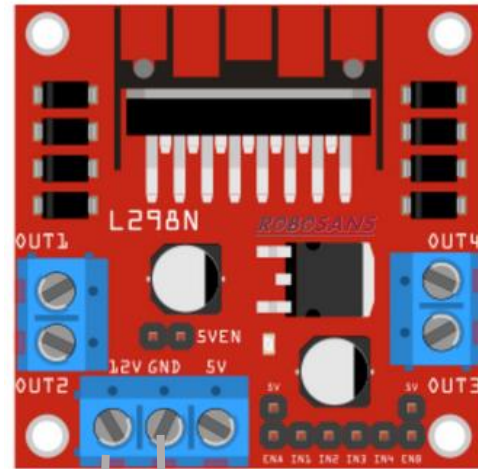
H-Bridge

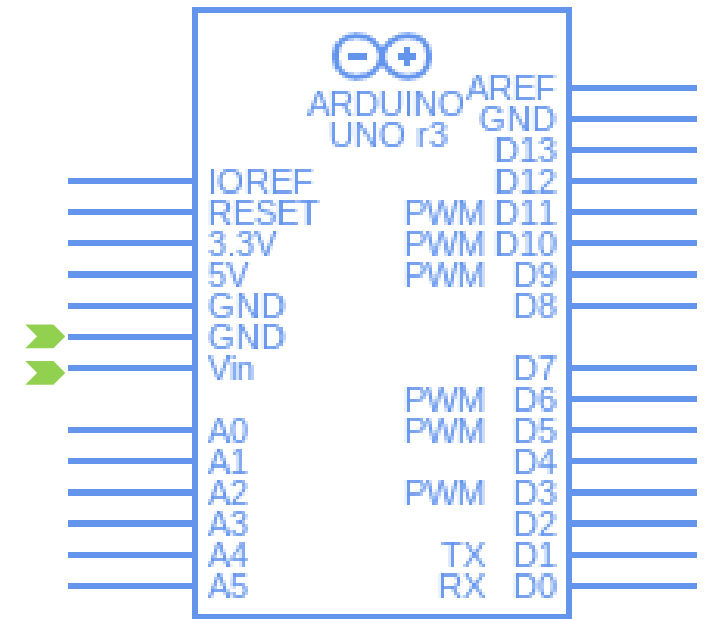
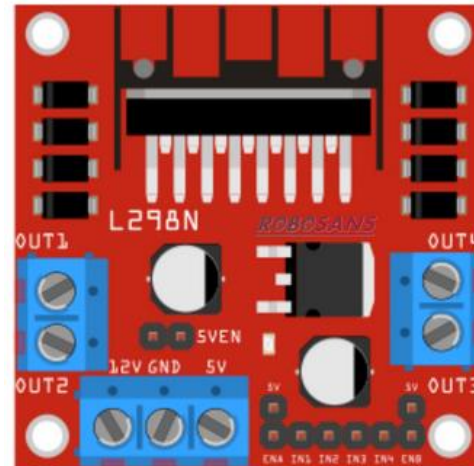


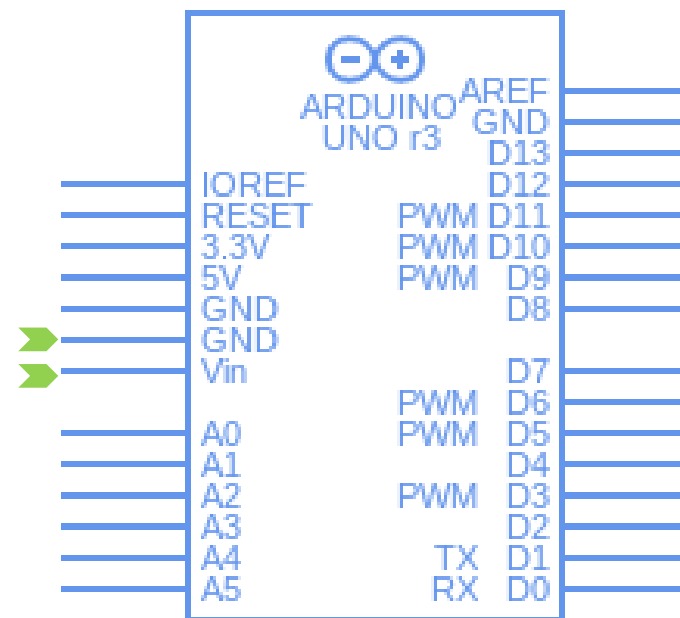
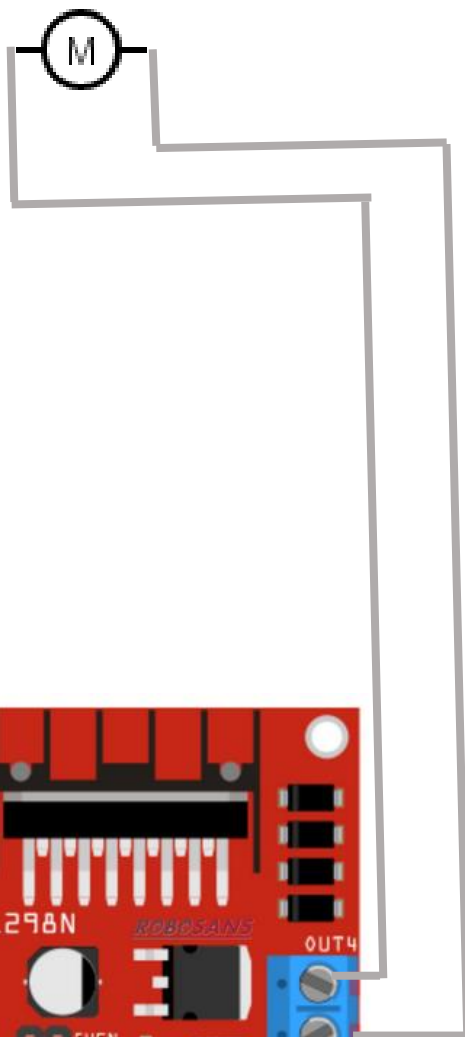
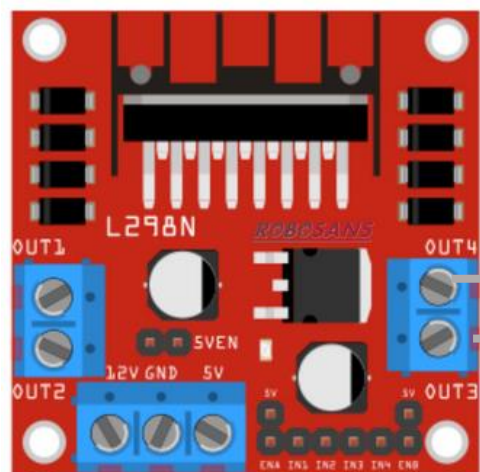
Circuit Diagram

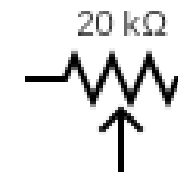
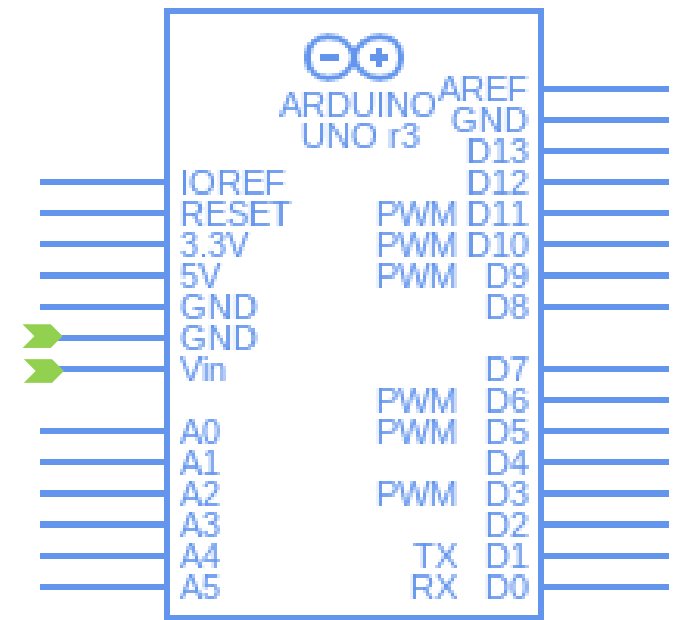
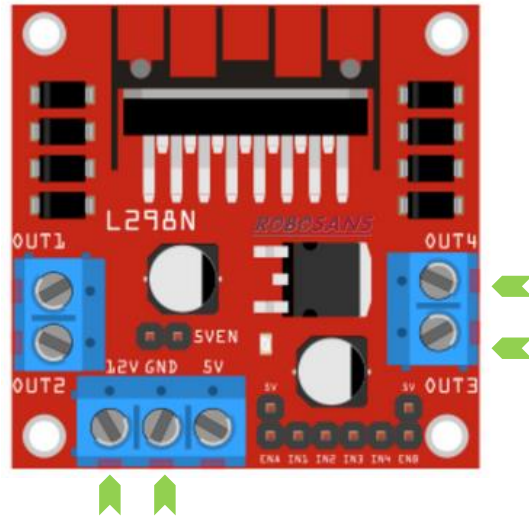


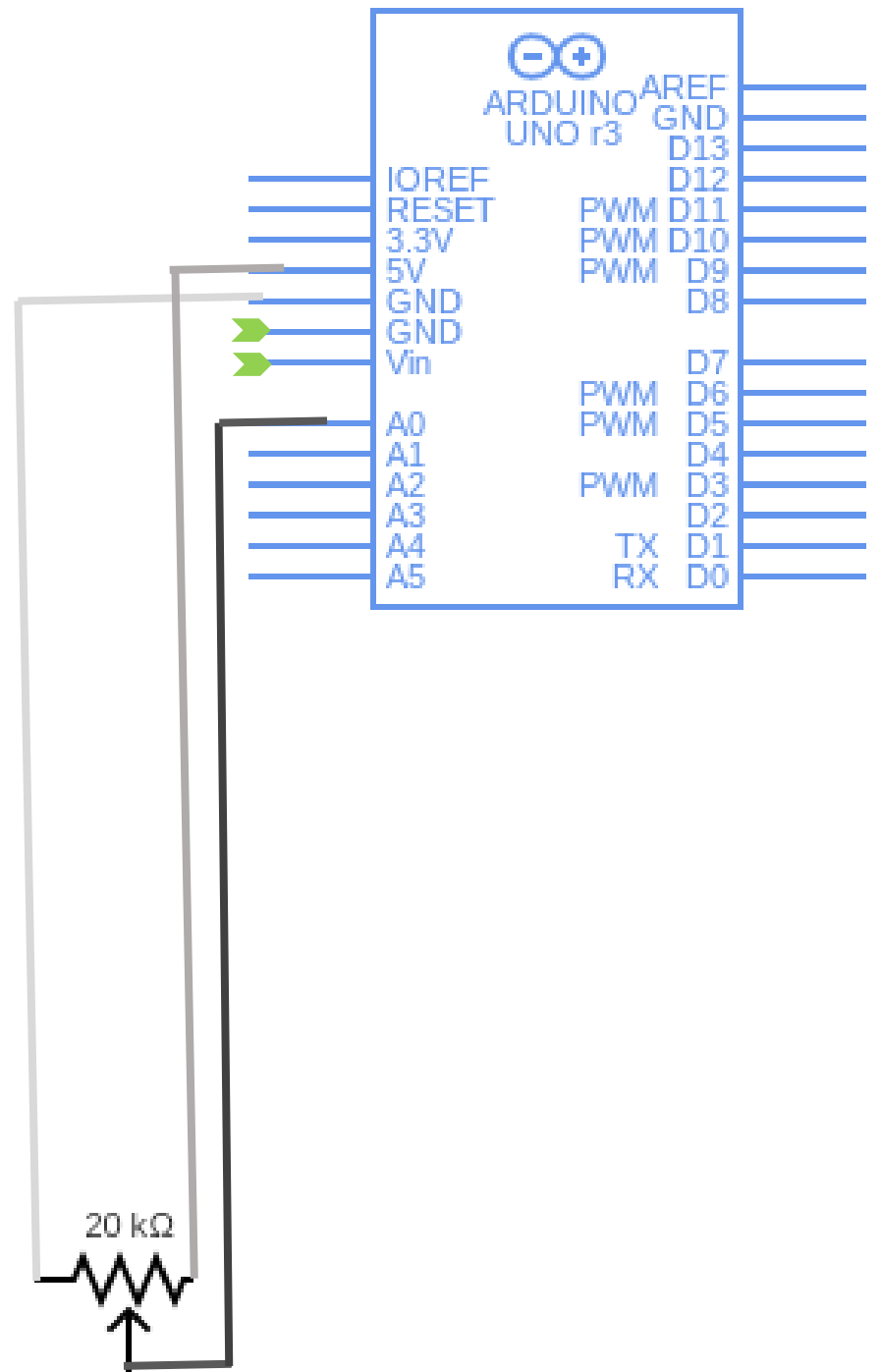
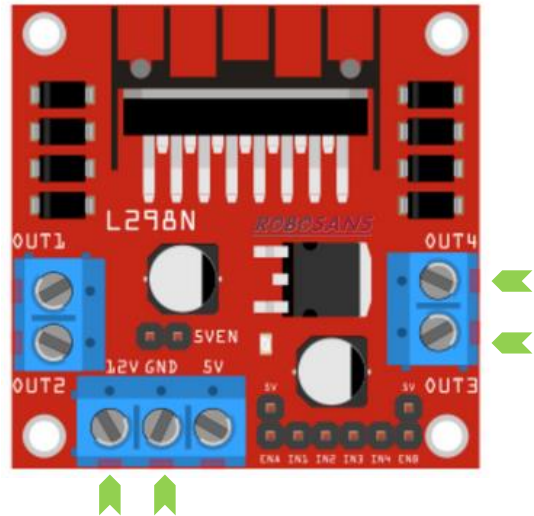


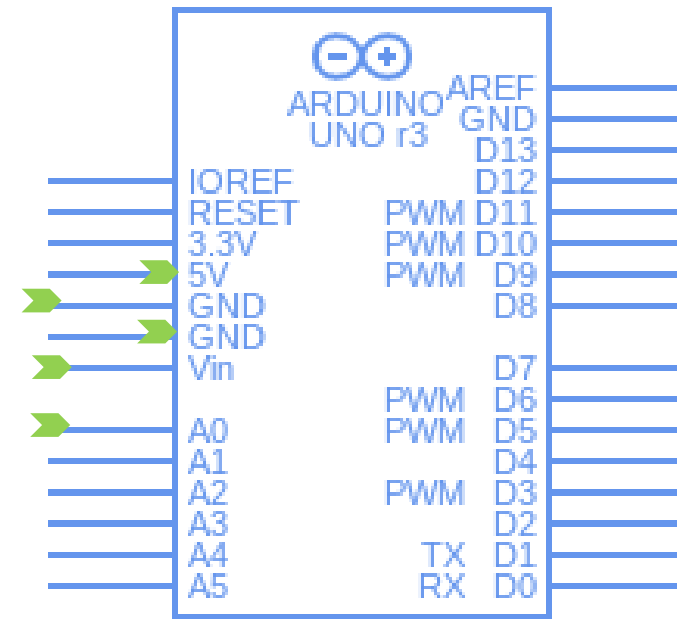
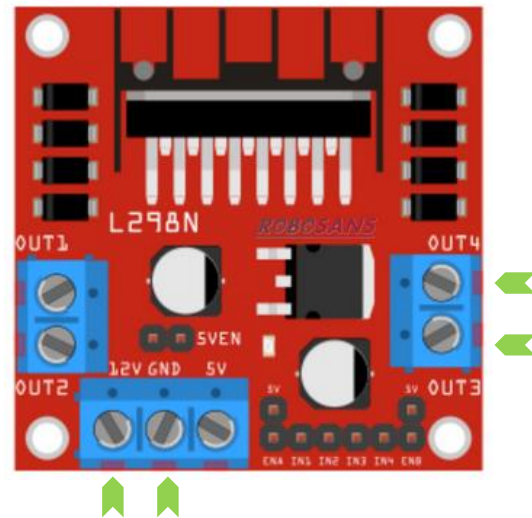


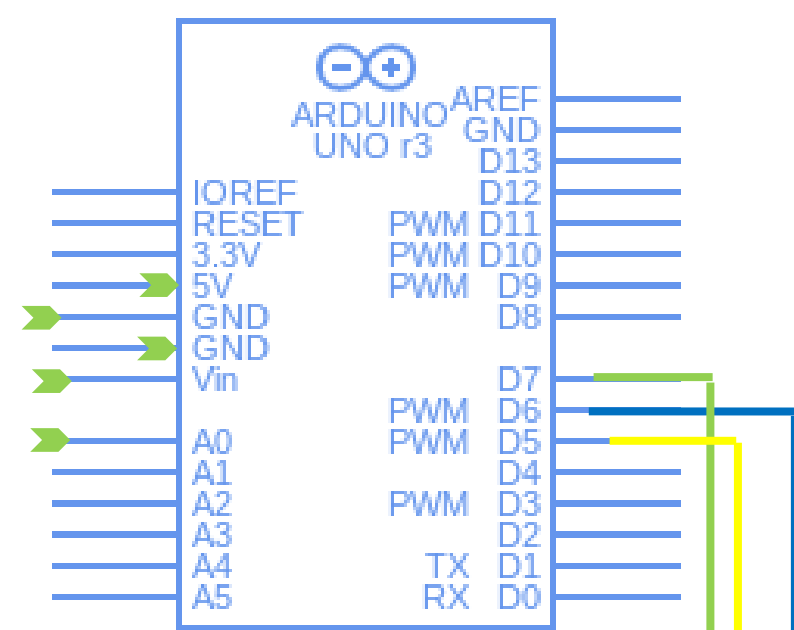
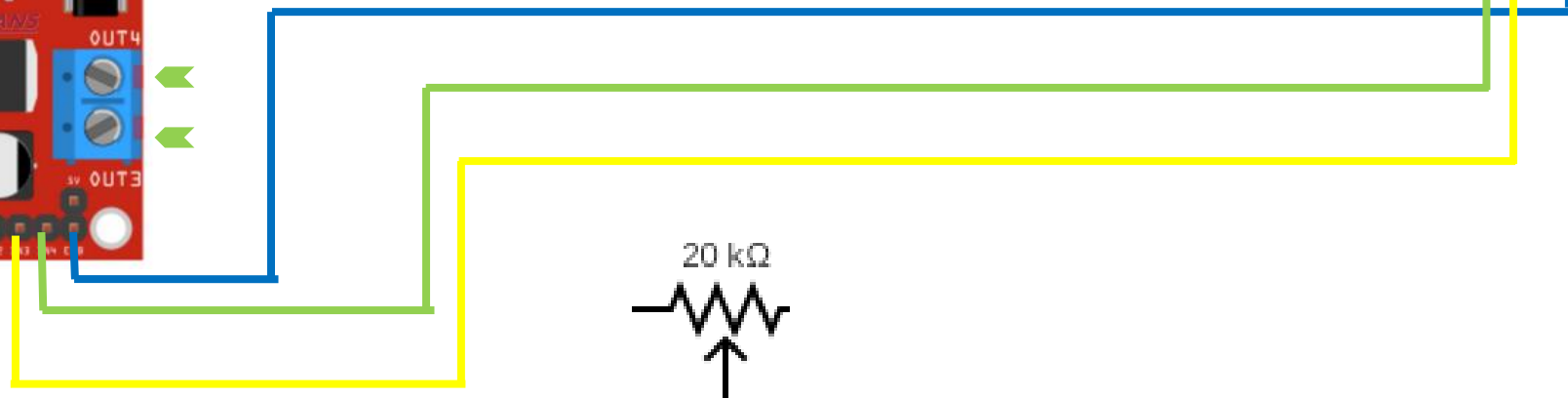
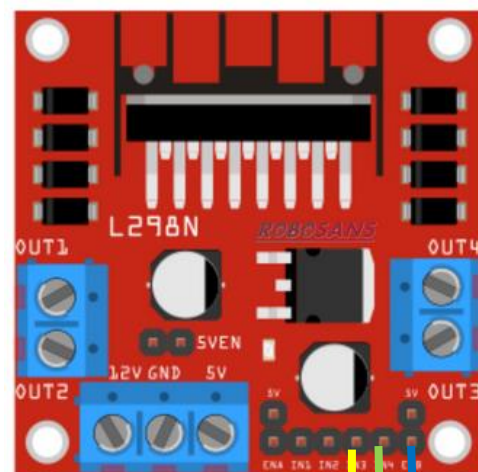


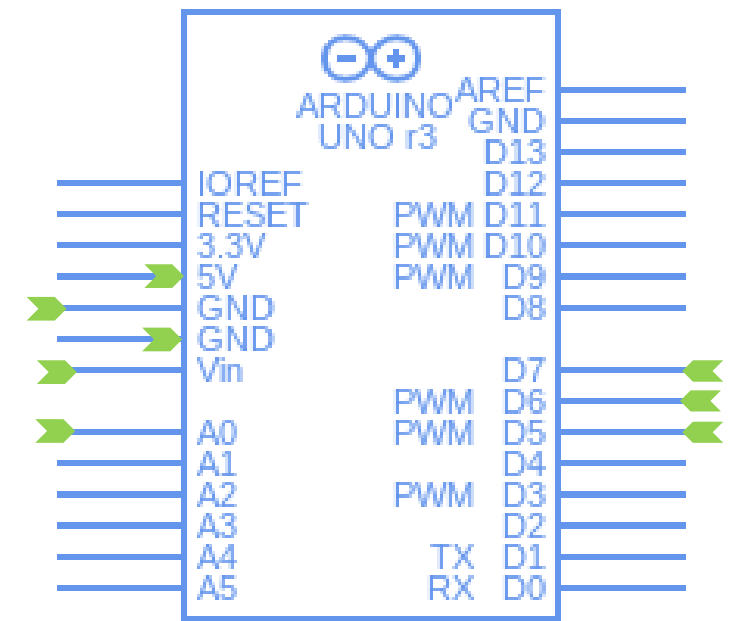
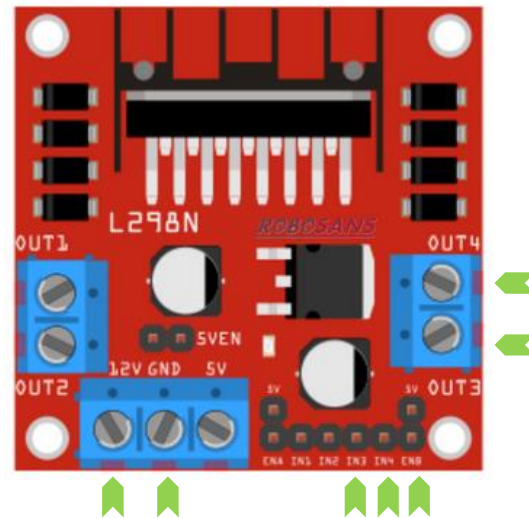


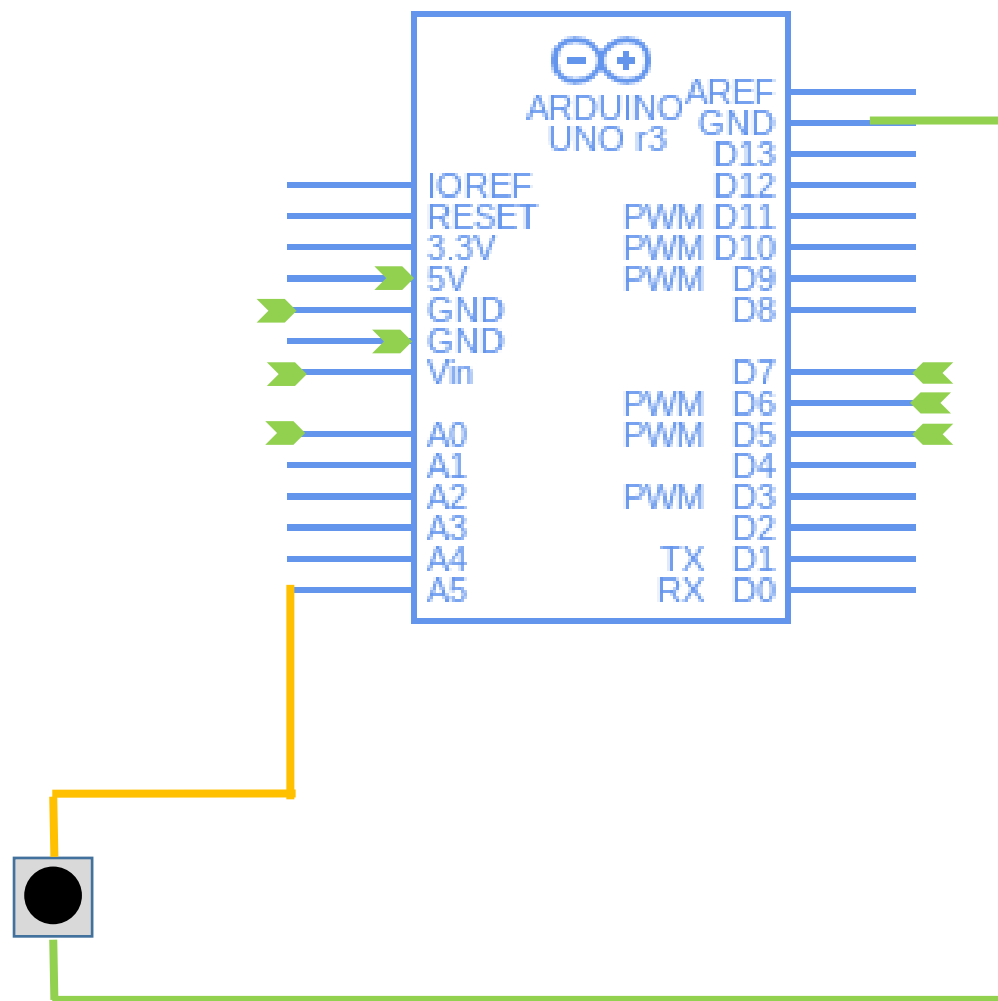
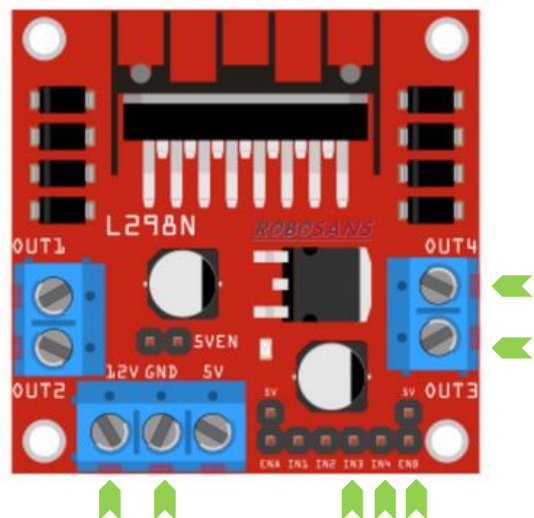












Code