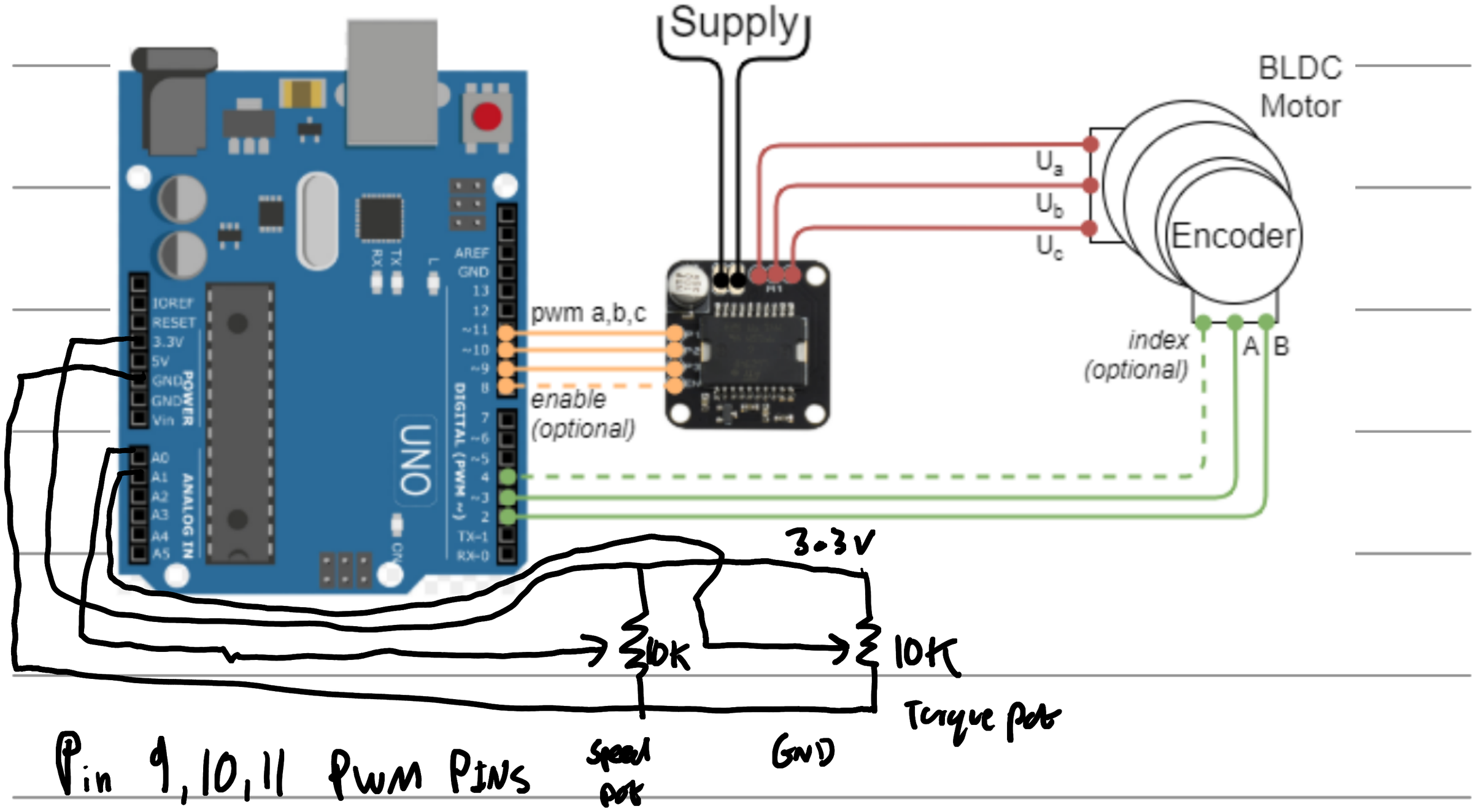
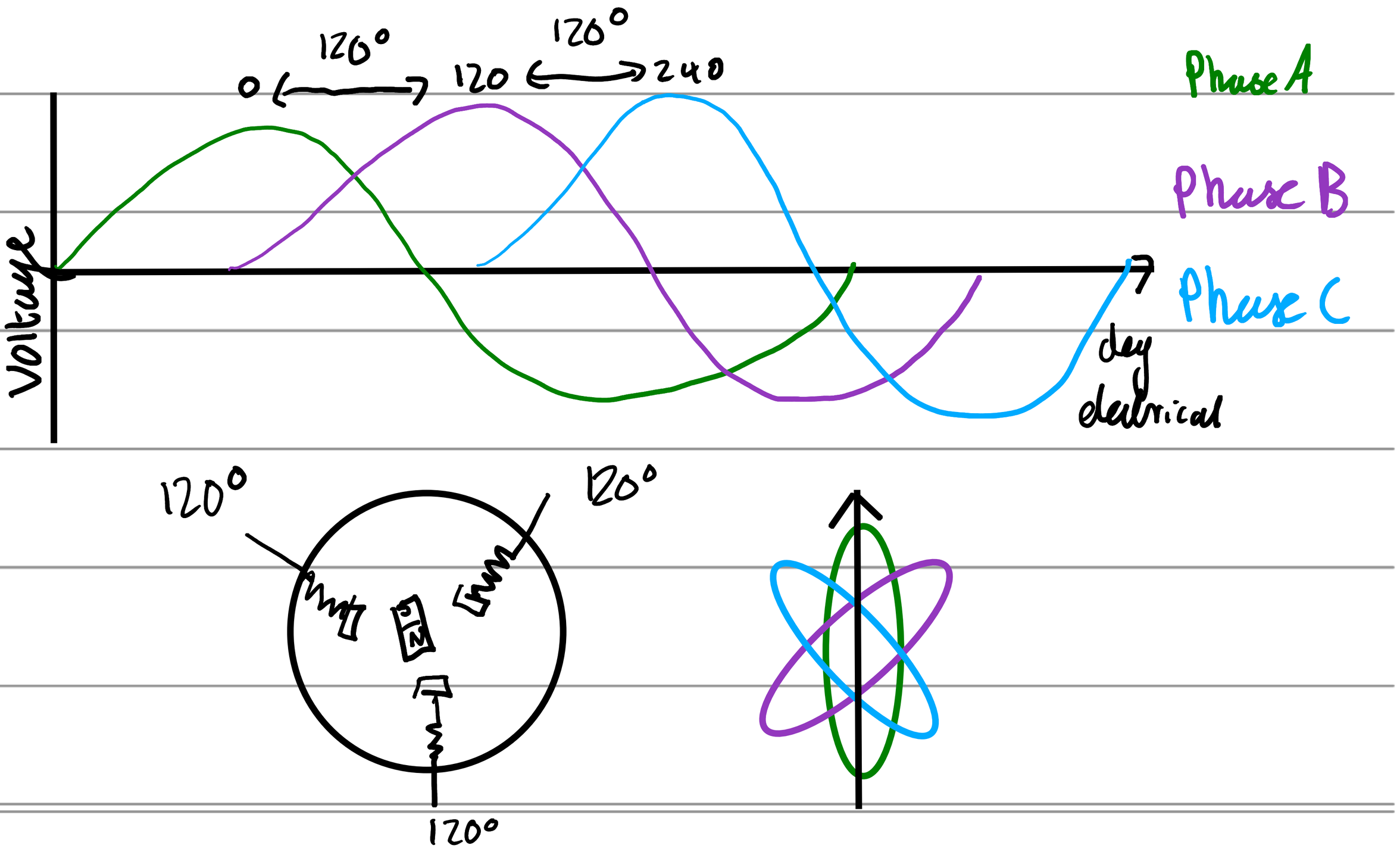
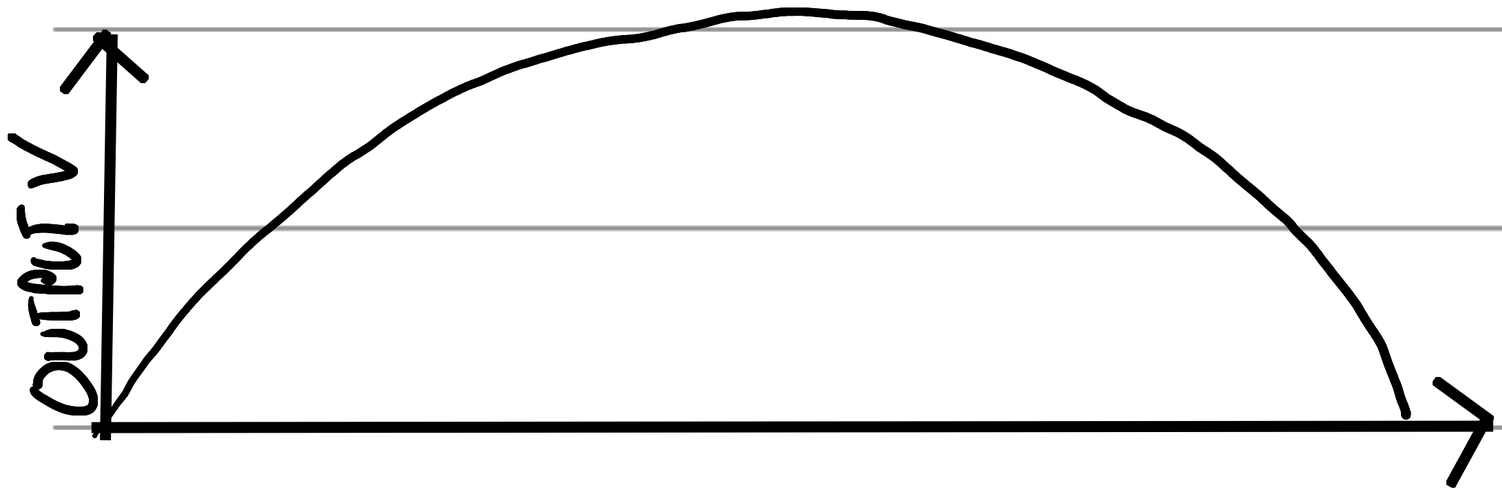
L6234D breakout + uno 3 phase driver

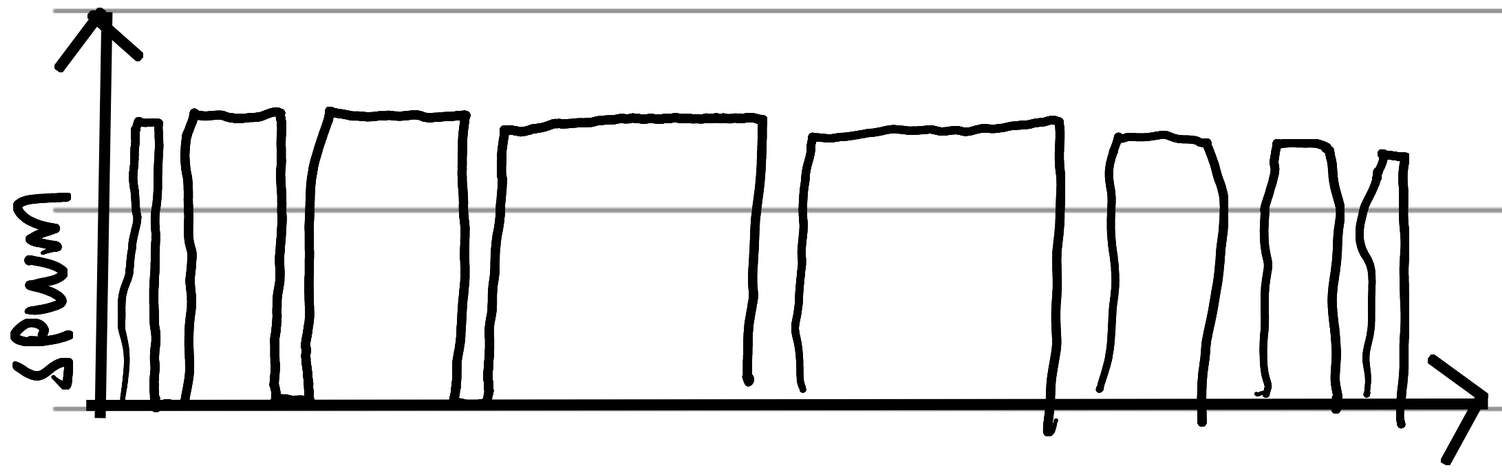




Use the Arduino to create the sinusoidal waves & the L6234 to amplify the signal. & apply them to the motor.

How to create such signals from Pwm, SPWM modules the signals to generate an approximate sinusoidal signal. One changes the width of the Pwm signal that follow a sine wave amplitude





Degrees to radians $1^{\circ} \times \frac{\pi}{180} = 0.0174533^{\circ}_{rad}$

int electrical_degrees_phase A = 0

phase B = 120

phase C = 240

loop electrical angle

loop: electrical_degrees_phase A %= 360

-phase B %= 360

-phase C %= 360

get spwm duty

spwm_phase_A = sin((double)electrical_deg_phase_A * π/180) X127.5 +127.5

phase_B -phase B

phase_C -phase C

write duty

analogue_write(motor phase A, spwm_phase_A x amplitude PC)

delay (scene speed ; interval).

extra ... set pwm clocks.