

Name: _____

TA: _____

Section: _____

EECS 40/43 Prelab: Calbot Lab (2)

1. Go to the Calbot page

<http://inst.eecs.berkeley.edu/~ee43/f02/project.html>

and read [Controlling the motor - programming the Pulse Width Modulation unit](#)

Question 1

Wire wrap the motor driver before coming to your lab section. Use the pin-outs from Chapter 5 (page 14) of the Calbot manual.

Some tips on wire wrapping

It's a good idea to put some paper down over the pins and number the pins the pins of the motor driver on the paper. Remember that you are putting your motor driver into the DIP socket on the backside of the board; thus on the top of the board, the pins are the mirror image of the pins from the datasheet. When you design any circuit for the board, remember to design in with the normal view of the circuit and a mirror image for when it's underneath the board. Also, it is also a good idea to use different color wires for the different signals.

Wire color	Signal
Red	Vcc
Black	Ground
Green	PWM
Blue	I/O – control input

Question 2

What is the PP0 and PW0 value for a PWM signal of 200 Hz with 80% duty cycle? What is the average voltage of such a signal? What input clock do you use?

Question 3

Fully charge your battery before coming to lab. You may need to go to 140 Cory to discharge your battery first. Ask any lab TA how to discharge the battery.