

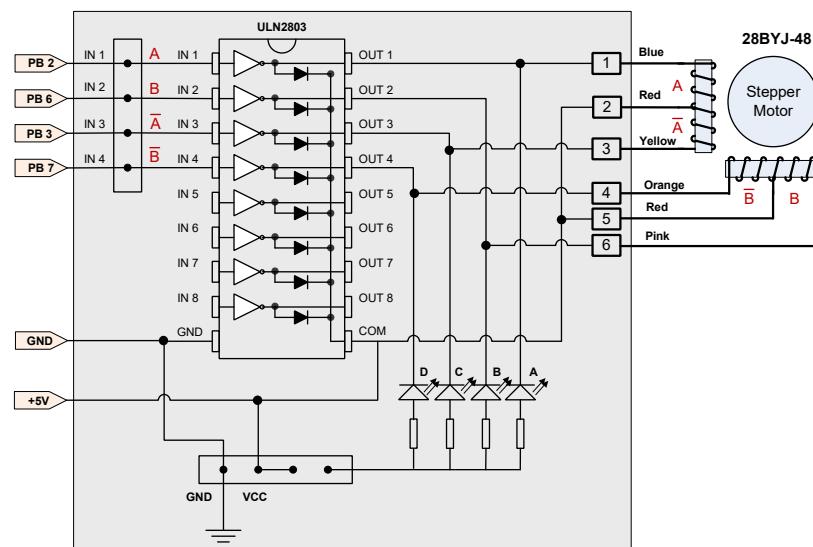
Lab 2: Pre-lab Assignment (10 points)**Mondays students:** Due on March 04, 2019 at the beginning of class**Wednesdays students:** Due on March 06, 2019 at the beginning of class

Print, answer, and hand it back to T.A.

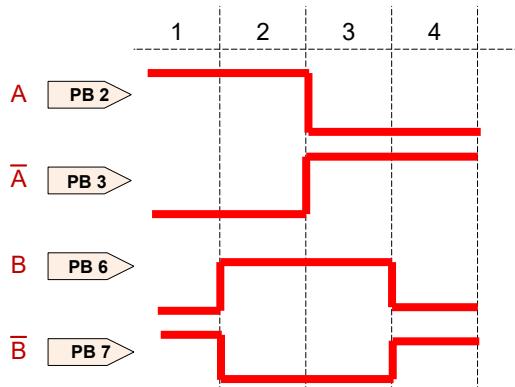
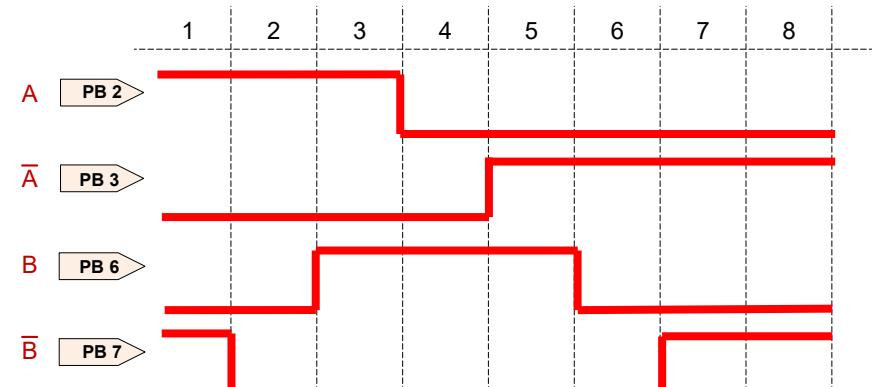
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Student name: SOLUTION

Interfacing the stepper motor requires four pins. We select the following four pins to control the stepper motor: **PB 2**, **PB 3**, **PB 6**, and **PB 7**. The textbook provides a connection diagram for stepper motor *Mabuchi #PF35T*, which is very similar to the diagram below.



1. Complete the diagram below for one sequence using full stepping half stepping. Refer to Figure 16-10 and 16-12 of textbook to complete the following two diagrams.

Full stepping sequence**Half stepping sequence**

2. How to change the rotation speed of a stepper motor?

To change the rotation speed you have to change the frequency of each output sequence to the motor.

I.E. you have to change the delay between each output.

3. How to reverse the rotation direction?

You just need to reverse the sequence of outputs.