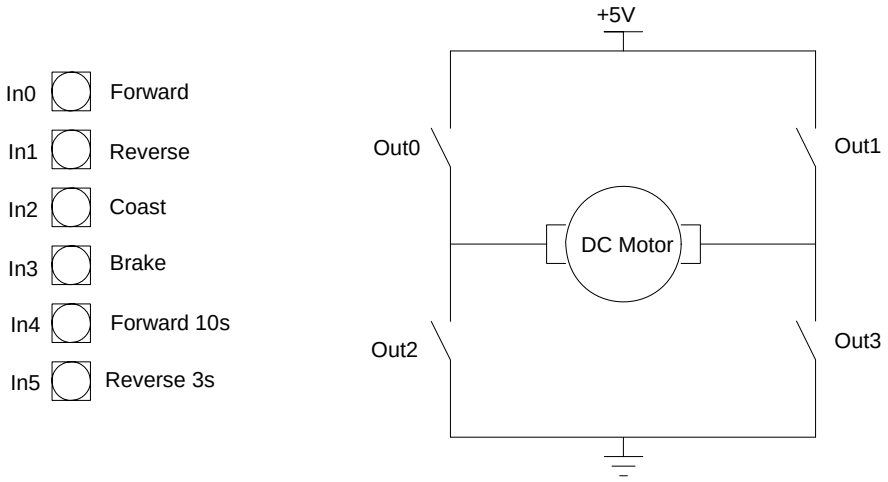
Homework #2: ECE 461 / 661

State Transitional Logic - Counters - Timers:. Due Wednesday, September 6th

A DC servo motor is connected to the PLC as follows:



Write a ladder logic program to control the stepper motor so that it has 6 funcitons

Button		Out0	Out1	Out2	Out3
0	Forward	Closed	Open	Open	Closed
1	Reverse	Open	Closed	Closed	Open
2	Coast	Open	Open	Open	Open
3	Brake	Open	Open	Closed	Closed
4	Fwd 10s	Closed for 10s then open	Open	Open	Closed for 10s then open
5	Rev 3s	Open	Closed for 3s then open	Closed for 3s then open	Open

Turn in:

- Screen dumps for your ladder logic program
- An explanation of how it works, and
- Verification that all six modes of operation work
  - Relays are open and closed appropriately
  - Timing is correct for mode 4 and 5 (hint: use an oscilloscope)

Note: There are multiple solutions.