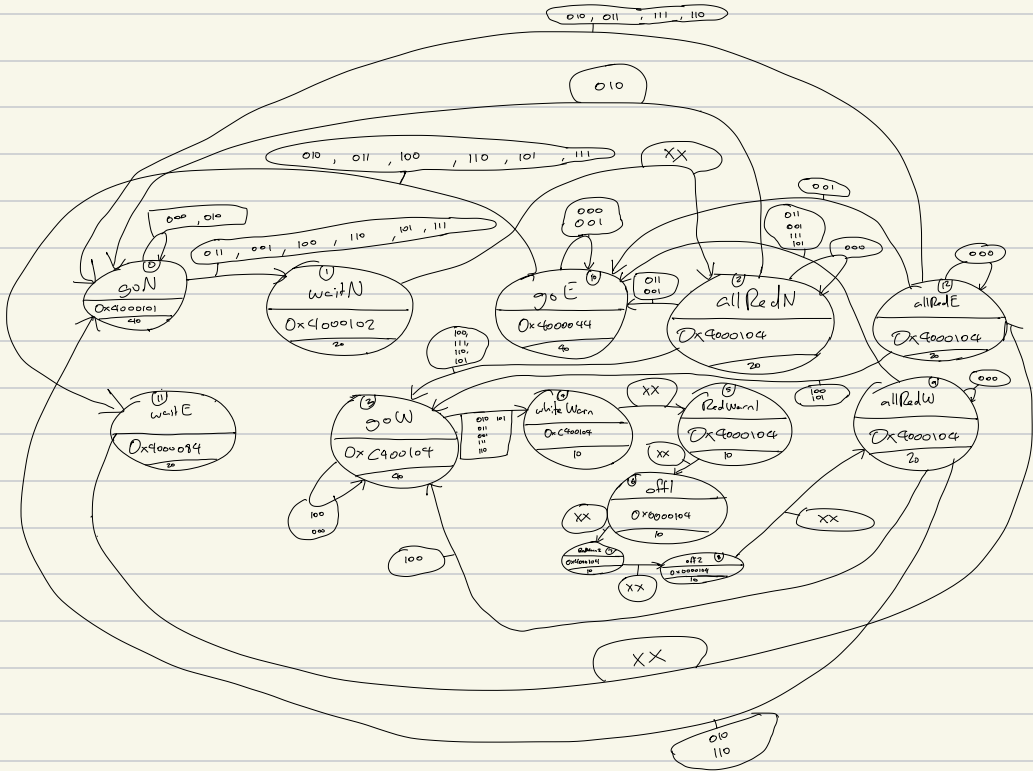


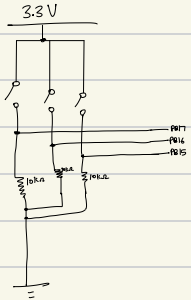
NGD 445, NR 25992

Lab 4 FSM

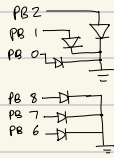


Lab 4 Circuit Diagram

Inputs:



Outputs:



▼ DataBuffer: 0x20200000

[0]: 1

[1]: 2

[2]: 4

[3]: 8

[4]: 16

[5]: 32

[6]: 64

[7]: 128

Lab 4, Spring 2025, Step 2. Debug switches

EID1= NGD445

EID2= NR25992

Switch= 0x1

Switch= 0x0

Switch= 0x2

Switch= 0x0

Switch= 0x4

Switch= 0x0

✓ DataBuffer: 0x20200000

[0]: 0x00040140

[1]: 0x01040240

[2]: 0x02040440

[3]: 0x030404C4

[4]: 0x040404C4

[5]: 0x05040440

[6]: 0x06040400

[7]: 0x07040440

[8]: 0x08040400

[9]: 0x09040440

[10]: 0x0A010440

[11]: 0x0B020440

[12]: 0x0C040440

[13]: 0x00040140

```
Lab 4, Spring 2025
EID1=NGD445, EID2=NR25992
Option A, South, connect Red=PB2, Yellow=PB1, Green=PB0
Option X, West, connect Red=PB8, Yellow=PB7, Green=PB6
Option 0, Sensor, connect Walk=PB17, South=PB16, West=PB15
When all inputs true, ... South, Walk, West, South, Walk, West, South, Walk, West, ... .....
Initialization, Grader started, Activate all three inputs.
Looking for Go South
Wait South
All stop
Go Walk
All stop
Wait Walk
All stop
Wait Walk
All stop
Go West
Wait West
All stop
Go South
Found Go South, Score= 11
Looking for Go Walk
Wait South
All stop
Go Walk
Found Go Walk, Score= 18
Looking for Go West
All stop
Wait Walk
All stop
Wait Walk
All stop
Go West
Found Go West, Finished, Score= 25
```