

ECGR 4161 / S196

6/28/10

Learn on lab 3:

①

- \* better idea of driving motors
- \* Digital Electronics

Better / Learn

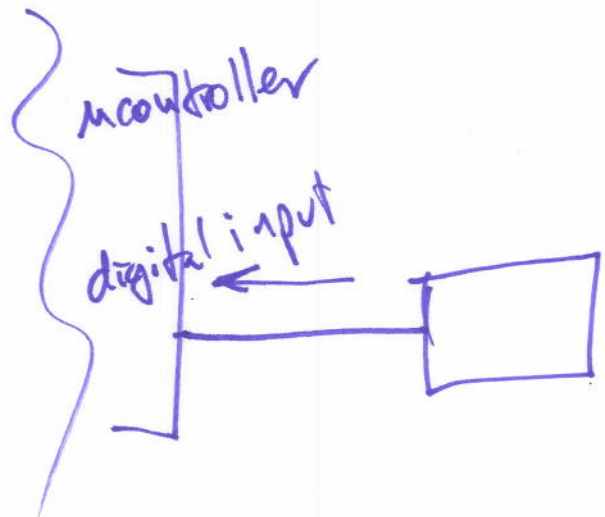
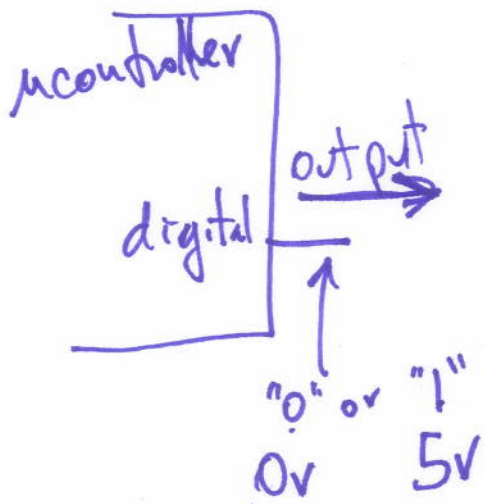
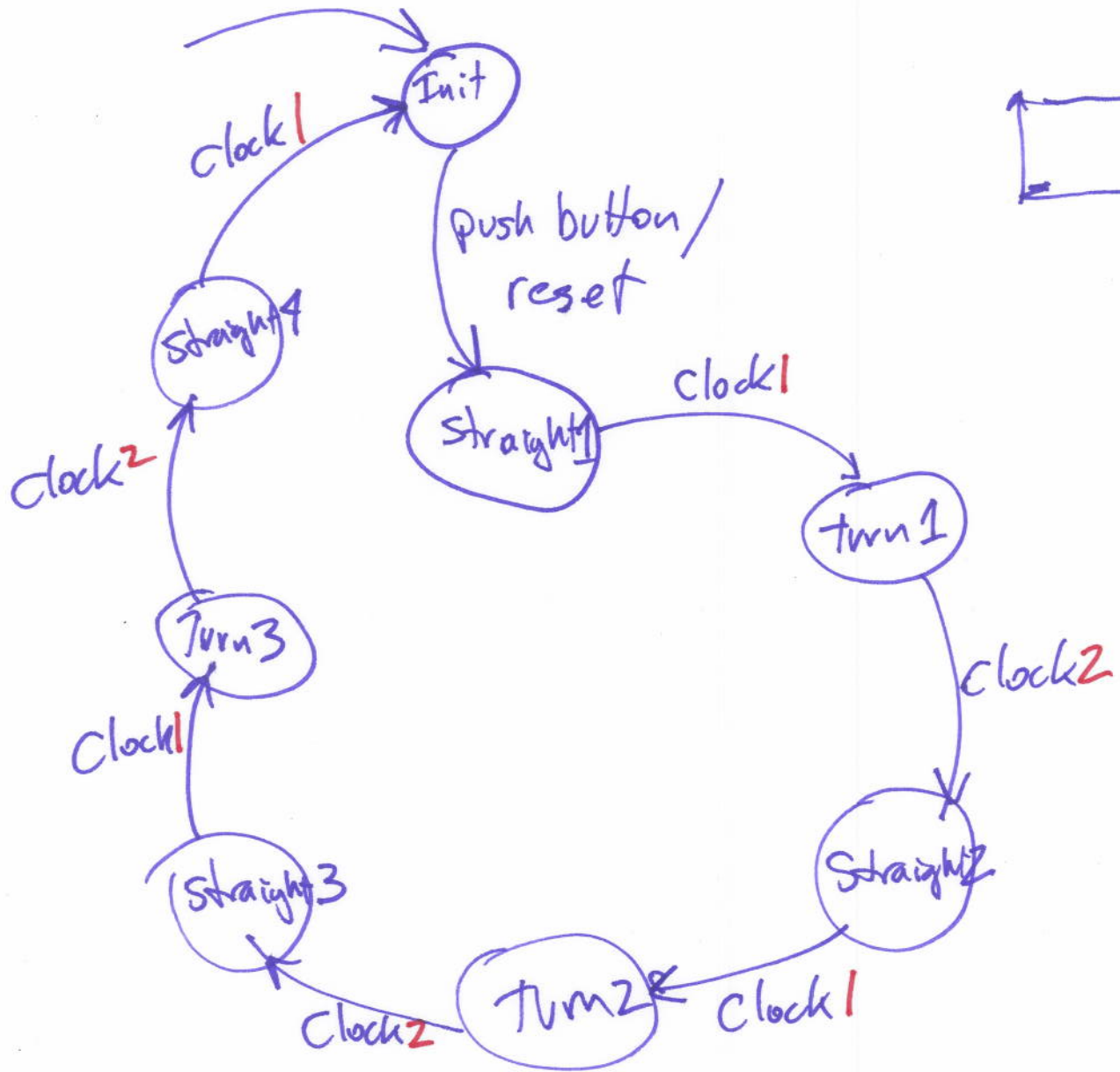
- \* Need better VHDL / Schematic Capture

---

Quiz 3

Show a state diagram of a  
Digital robot that solves Lab 3.

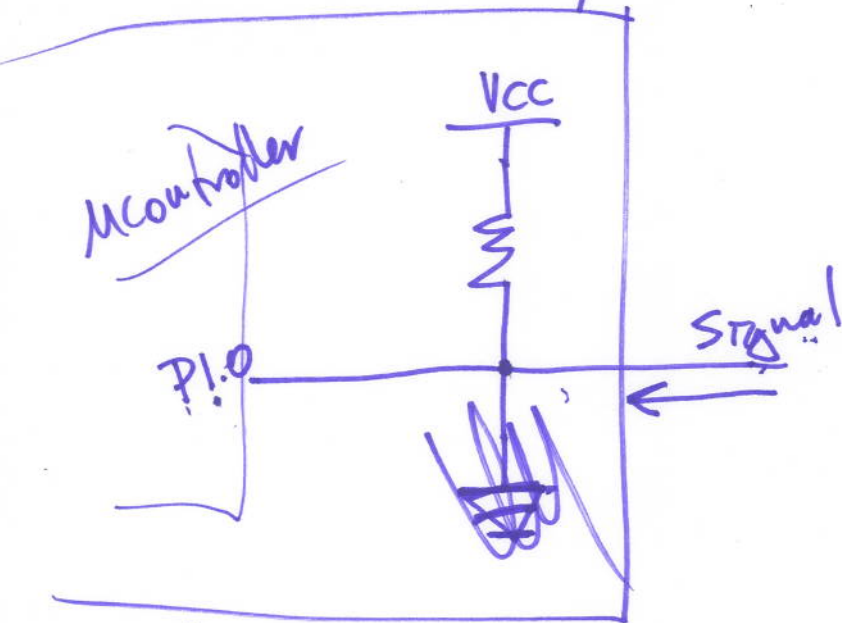
(2)



ECGR4161 / S196

6/28/10

(3)



When signal is "floating" = P1.0 = VCC

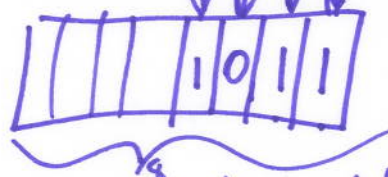
When signal is "1" = P1.0 = VCC

When signal is "0" = P1.0 = 0V

↑ Pull-up?

enable L  
direction L  
enable R  
direction R

P2  
8-bits



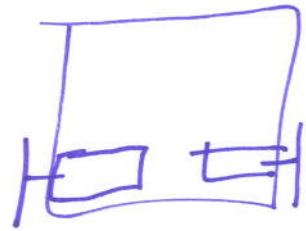
enable r motor, direction "forward"

P2 = 3;

enable r motor, direction "back"

P2 = 2;

go forward  
P2 = 11 ; // b'1011'  
= ~~0x0b~~ 0x0b;  
= 0b00001011;

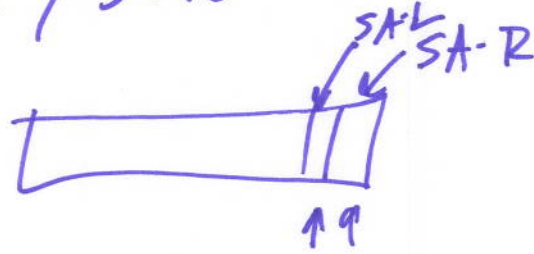


ECGR 4161 / 5196

6/28/10

④

Input P4



value = P4;

if value = 0

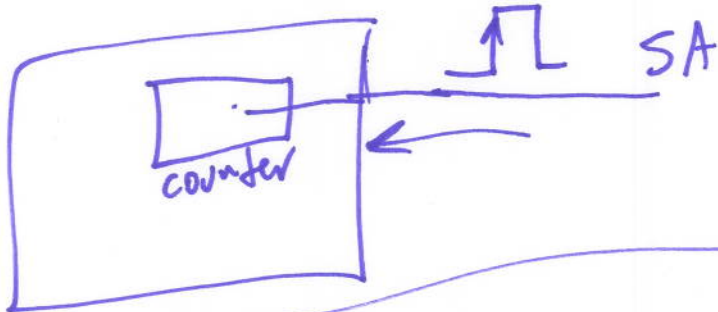
1

2

3

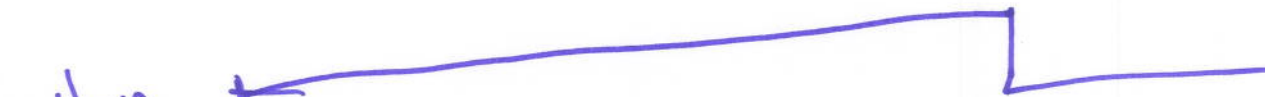
if (P4 & 1)

if (P4 & 2)



button push

↑ pause



ECG RA161/S196

6/28/10

5

0000  
 0001  
 0010  
 0011  
 0100  
 0101  
 0110  
 0111  
 1000  
 1001  
 1010  
 1011  
 1100  
 1101  
 1110  
 1111

0v

5v

16-  
#5

