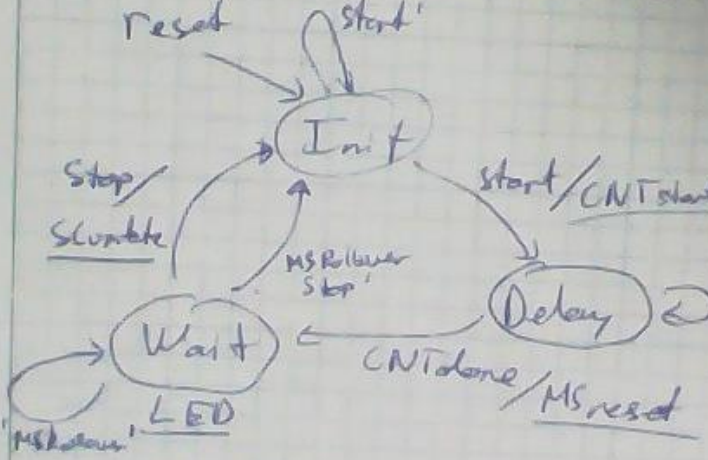
Lab 11 Prep

1. $\frac{50M \text{ cycles/sec}}{load\_num \text{ cycles/pulse}} = 1k \frac{\text{pulses}}{\text{sec}}$

$\frac{50,000,000}{1,000} = load\_num = 50,000$

2. Multiple Possible Answers



3. Possible Encoding and Next State Equations

One Hot

Init 001
Delay 010
Wait 100

$N[0] = reset + Q[0] \cdot start' + Q[1] \cdot (Stop + MSrollover)'$

$N[1] = Q[0] \cdot start + Q[1] \cdot CNTdone'$

$N[2] = Q[1] \cdot CNTdone + Q[2] \cdot Stop' \cdot MSrollover'$

$CNTstart = Q[0] \cdot start$

$MSreset = Q[1] \cdot CNTdone$

$LED = Q[2]$

$Scupdate = Q[2] \cdot Stop$