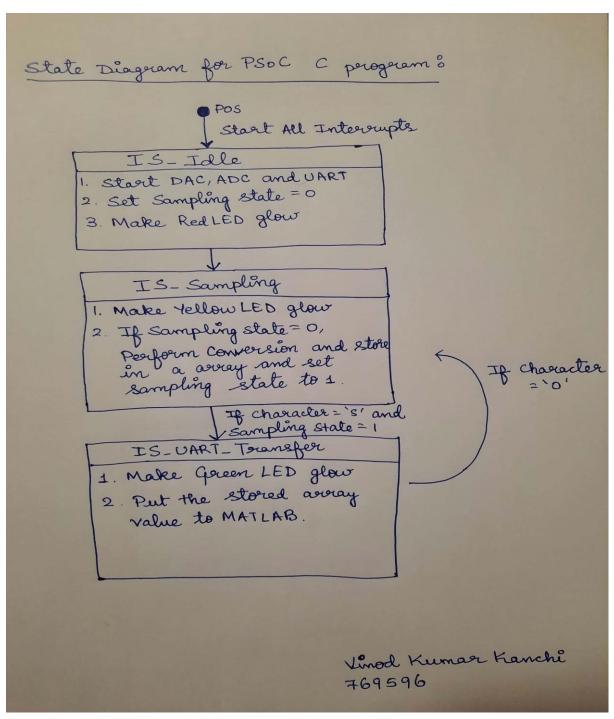
# **Submission 2: Software Assignment**

Vinod Kumar Kanchi

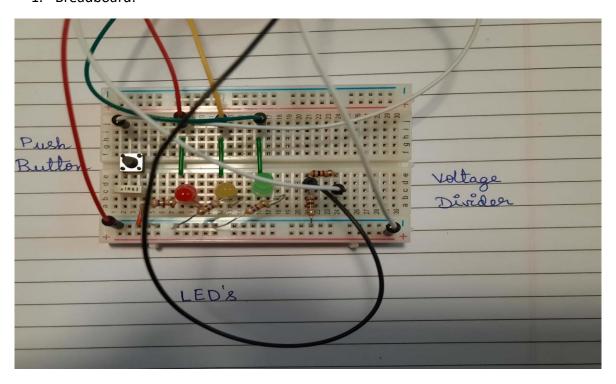
769596

#### **State Machine Diagram:**

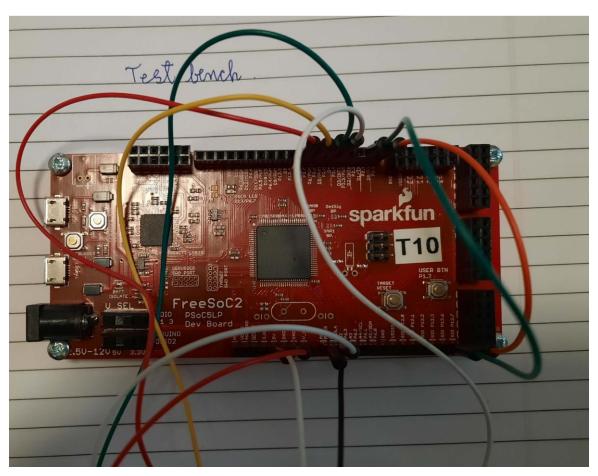


# **Photo of the Test Bench:**

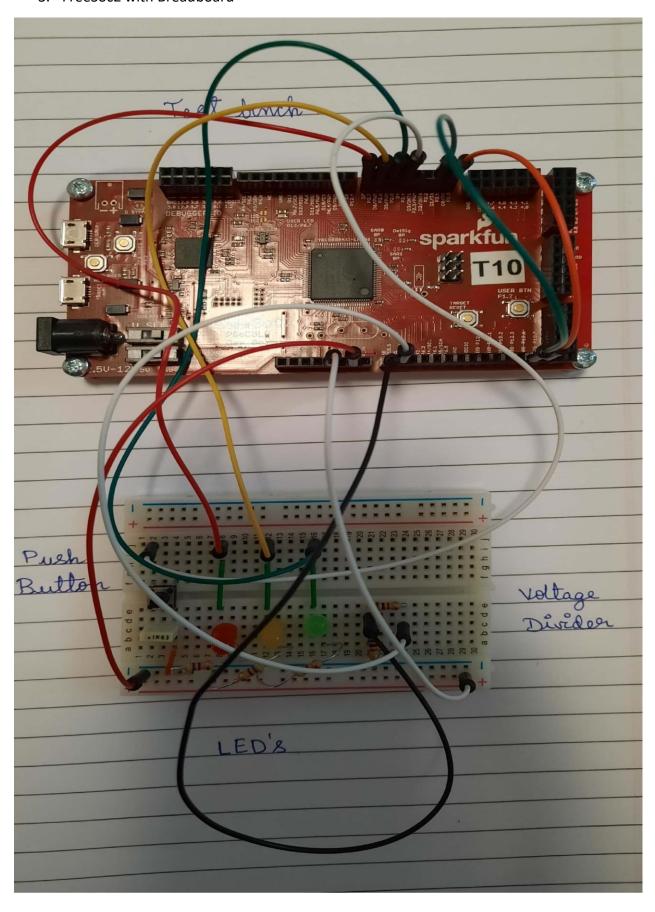
### 1. Breadboard:



# 2. FreeSoC2



# 3. FreeSoc2 with Breadboard



# **Ideas for further improvements:**

- 1. Using a DMA for efficient memory allocation instead of array.
- 2. Various signals can be tested with the WaveDAC8.
- 3. Sending another character implying all transfers done and state could go back to idle.