Group Project Proposal - Digital Construct
Course Code: CP-319

Topic: Digital timer

Group List

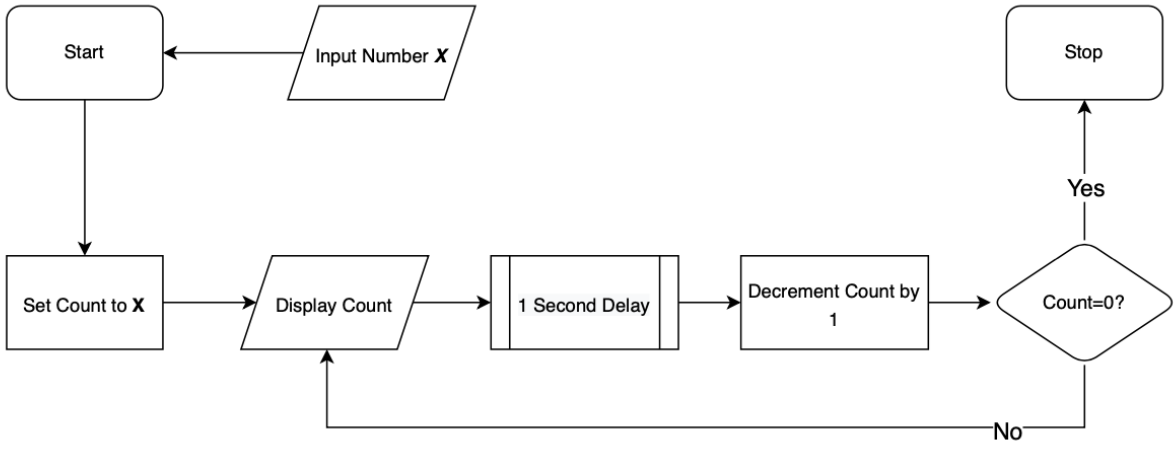
- Andrew Best - 190620060
- Mark Simao -190667760
- Arhan Ikram - 170399300
- Wrenen D'Cunha - 200560590
- Beheashta Atchekzai - 190637520

Introduction:
The digital system that our group has chosen is a digital timer. The device will measure intervals of time in seconds and display the interval on a digital seven segment display. The system will take 2 inputs; one that specifies the interval to be counted down to, and a switch that begins the countdown.

Potential Applications:
Timers have a wide range of uses in any task that require dealing with accurate measurements of time. Some potential applications involving digital timers include:

- Alarm Clocks
- Microwaves
- CPUs
- etc.

Conceptual Design:



The design for our Digital Timer consists of 6 bits for the input, two 7 segment displays for the output, along with decoders and counters for processing between the input and output. The input ***X*** accepts a number from 0-60, and when the start push button switch is triggered our circuit follows the path seen in the above flowchart. On startup input ***X*** is set as our count number from which the countdown will start. The count is displayed on the 7 segment display, and decreased by 1 as each second goes by until it reaches 0 at which point it stops.

Timeline:

Project Approval	Week 6
Circuit Design Planning	Week 6
Circuit Design Creation	Week 8
Presentation Video	Week 9
Final Report	Week 12

Digital logic components:

Power Supply (Battery)
Seven segment display(s)
Push button switch
Decoder
Counter