The Order of Instruction Mode is a loop that goes Clear -> Write -> Read -> Back to Clear

Inputs: Button1/Button2

Button2 is the change Instruction mode button.

Button1 is the execute instruction button

A 1/1 input will act as an Instruction Clear, Resetting the Instruction Mode to Clear Instruction
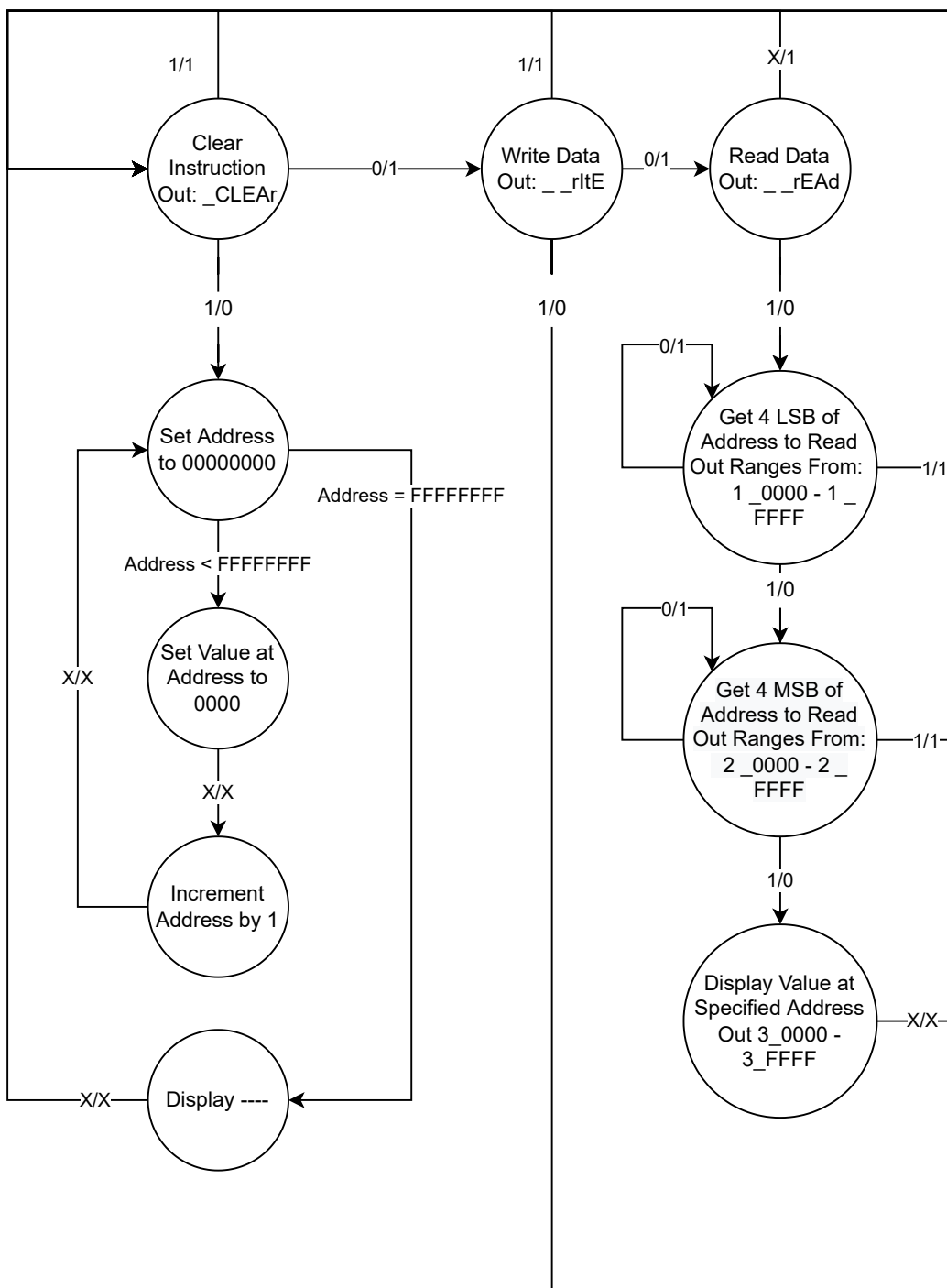
Output: Display on the 7 Segment LED Displays, there are 6 LED Displays on the Board

The LED Displays are referred to in decreasing order from left to right as LED5-LED4-LED3-LED2-LED1-LED0

All Addresses will be displayed on LED3-LED0

Switch 3-0 will cyclically increment LED3-0 from 0 to F on respectively

Underscores Represent a Blank LED Dispaly   Ex: Out _ _ _ _ _ _

The Default Read Address will be 00000000

The Value in LED0 - LED3 will be incremented by Sw0-S3 Respectively
If incremented past 15 it will rollover to 0 again
The value shown in LED5 represents the stage of instruction (1 to 3) that is currently being executed.

```
        0/1
        ┌──┐
        │  ▼
    ╭────────────╮
    │ Get 4 LSB of │
    │Address to Write to,│
    │ Ranges From: │
    │1_0000 - 1_FFFF│
    ╰────────────╯
          │
         1/0
          │
        0/1
        ┌──┐
        │  ▼
    ╭────────────╮
    │ Get 4 MSB of │
    │Address to Write to,│──────1/1──────┐
    │ Ranges From: │
    │2_0000 - 2_FFFF│
    ╰────────────╯
          │
         1/0
          │
        0/1
        ┌──┐
        │  ▼
    ╭────────────╮
    │Get Value to write to│
    │ specified address, │
    │Ranges from 3_0000-│──────X/X──────┘
    │     3_FFFF     │
    ╰────────────╯
```