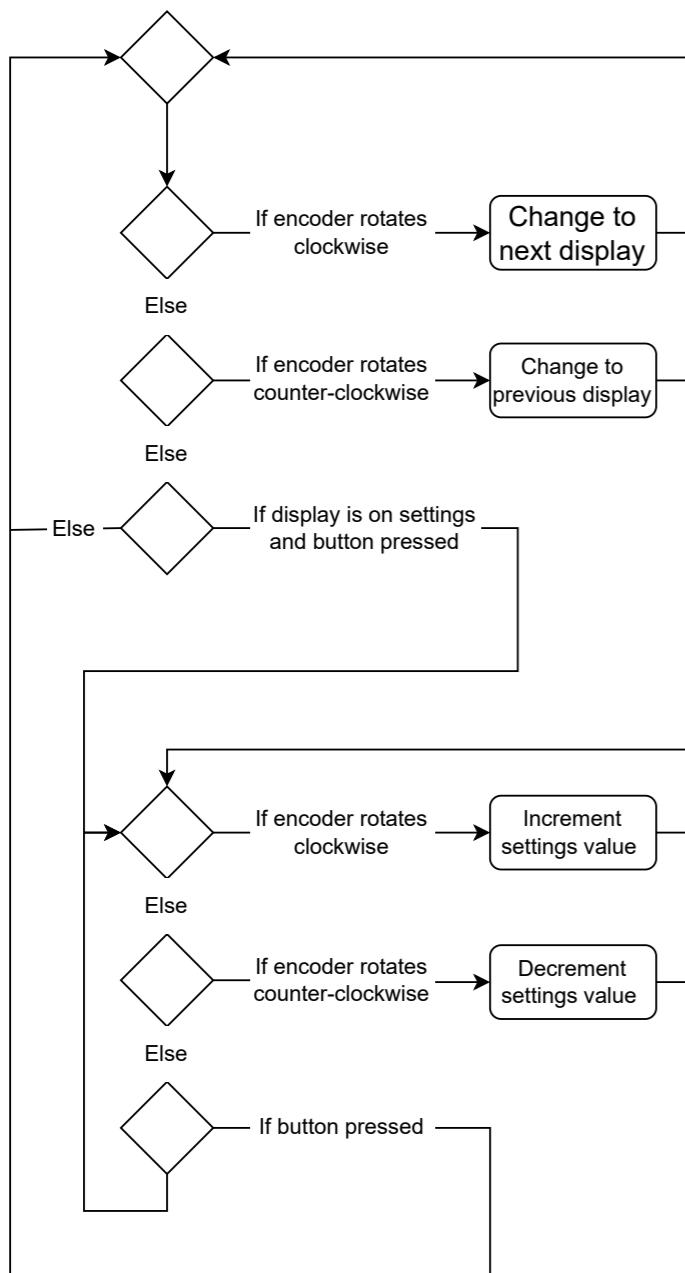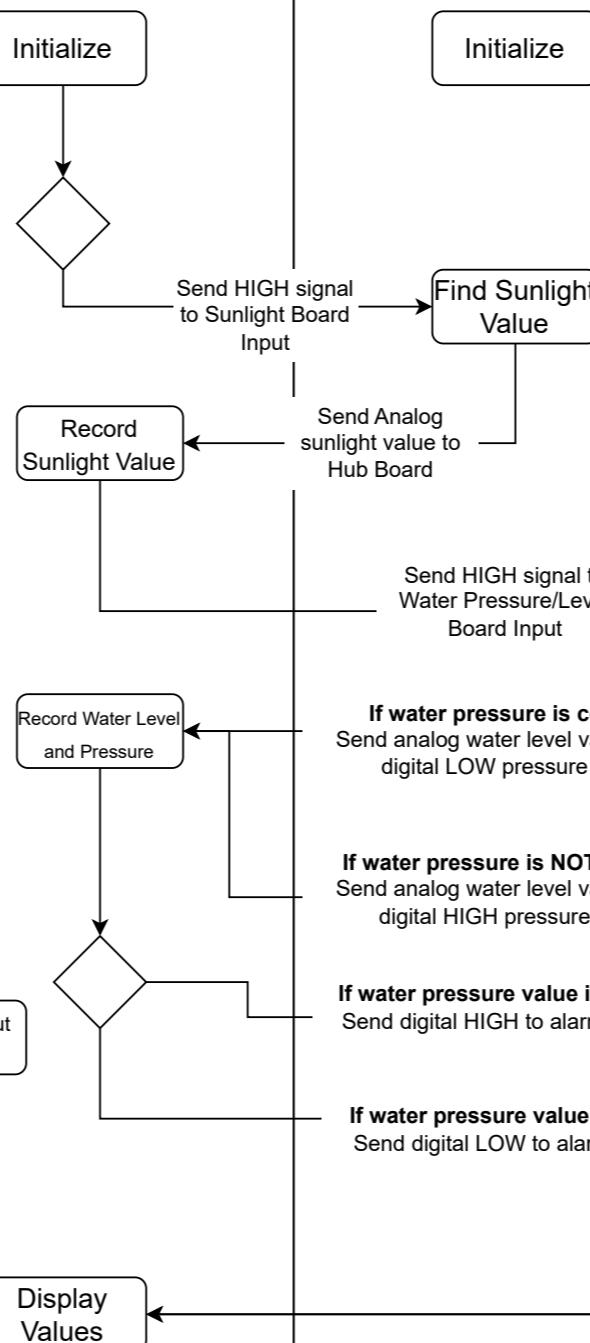| Hub (User Input Logic)	Hub	Sunlight	Water Pressure/Level	Alarm

Hub (User Input Logic)

- If encoder rotates clockwise → Change to next display
- Else
- If encoder rotates counter-clockwise → Change to previous display
- Else
- Else — If display is on settings and button pressed
- If encoder rotates clockwise → Increment settings value
- Else
- If encoder rotates counter-clockwise → Decrement settings value
- Else
- If button pressed

Hub

- Initialize
- Send HIGH signal to Sunlight Board Input
- Record Sunlight Value
- Record Water Level and Pressure
- Run User Input Logic Loop
- Display Values

Sunlight

- Initialize
- Find Sunlight Value
- Send Analog sunlight value to Hub Board
- Send HIGH signal to Water Pressure/Level Board Input

If water pressure is correct: Send analog water level value and a digital LOW pressure value

If water pressure is NOT correct: Send analog water level value and a digital HIGH pressure value

If water pressure value is HIGH: Send digital HIGH to alarm board

If water pressure value is LOW: Send digital LOW to alarm board

Water Pressure/Level

- Initialize
- Find Sensor Values

Alarm

- Initialize
- **If digital input is HIGH:**
- **If digital input is LOW:**
- De-Activate Alarm
- Activate Alarm