```
OFF (Initial State)
        |
 Mode Button Pressed
        |
        v
      HEAT
        |
 Mode Button Pressed
        |
        v
      COOL
```

LCD Behavior: • Line 1: Date + Time • Line 2 alternates: - Temp: XX°F - STATE SP:XX • Alternates every 5 cycles

UART Behavior: Every 30 seconds send: state,currentTemp,setPoint

Set Point Buttons: • GPIO 25 → Increase SP • GPIO 12 → Decrease SP Triggers updateLights()