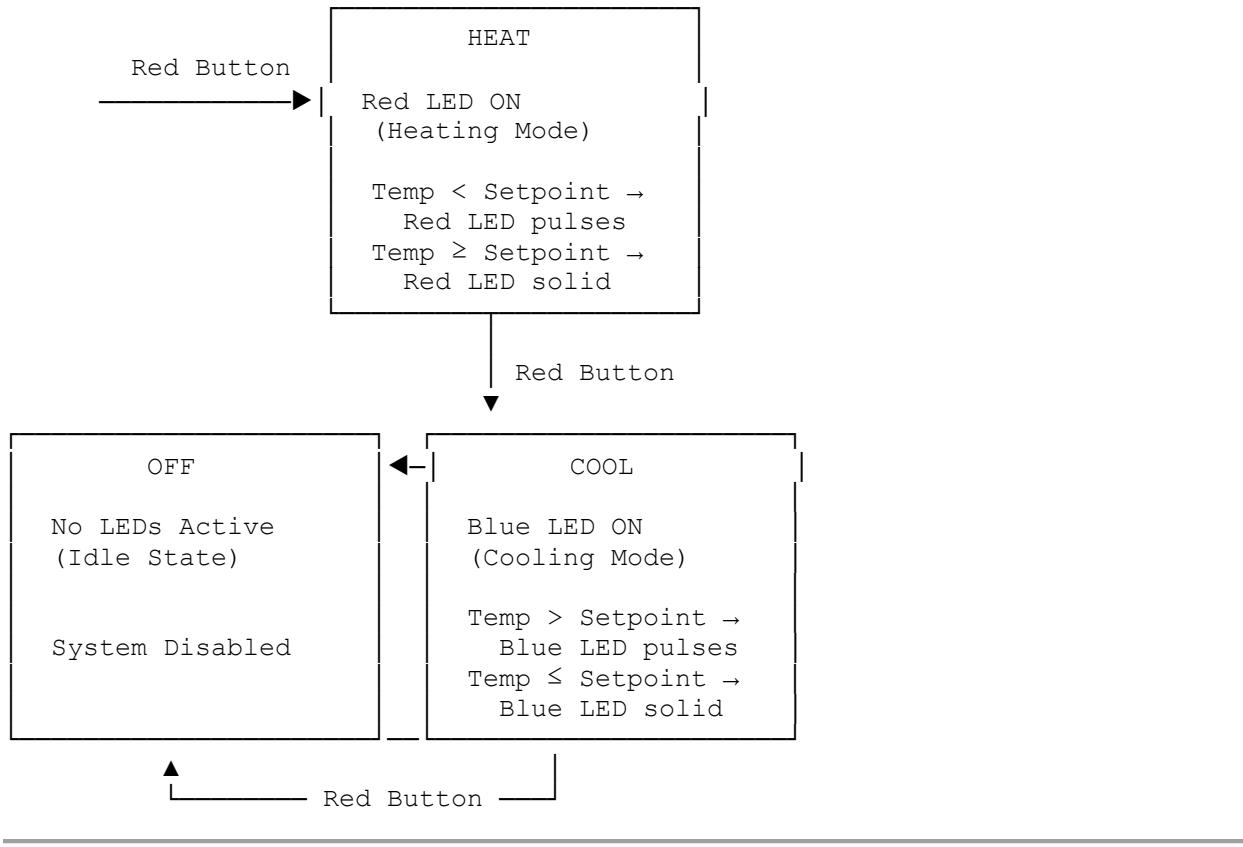


CS-350 Module 7 – Thermostat State Machine Diagram

Thermostat State Machine Diagram



○ Button Logic (Applies in ALL States)

- **Red Button**
 - Cycles thermostat state:
 - OFF → HEAT → COOL → OFF
- **Green Button**
 - Increases temperature setpoint
 - **Does NOT change state**
- **Blue Button**
 - Decreases temperature setpoint
 - **Does NOT change state**

✓ This separation of responsibilities is explicitly required by the SNHU rubric.



State Transition Summary

Current State	Input	Next State
OFF	Red Button HEAT	
HEAT	Red Button COOL	
COOL	Red Button OFF	



LED Behavior Logic

State	Temperature Condition	LED Behavior
HEAT	Temp < Setpoint	Red LED pulses
HEAT	Temp ≥ Setpoint	Red LED solid
COOL	Temp > Setpoint	Blue LED pulses
COOL	Temp ≤ Setpoint	Blue LED solid
OFF	Any	LEDs off