



#### State Machine (cycle()).

OFF → HEAT → COOL → OFF (repeat)

`cycle()` = Green button short press

#### Non-State-Transition Controls:

- Red Button: `setPoint++` (7-seg = "u")
- Blue Button: `setPoint--` (7-seg = "d")
- Green HOLD: Toggle F/C scale  
& 7-seg blinks "F." or "C." (5 times)

#### System Behaviors (All States):

7-Segment Display (event-driven):

- Shows state symbol (0/H/C) on:
  - state entry
  - after UART animation (0)
  - after Scale change (F./C.)
- Shows action symbol (u/d) on button press
- Clears after 3 seconds of inactivity

UART (every 30 seconds):

- Plays rotation animation on 7-seg display
- Sends data to server (`state, temp, setPoint`)