

Report

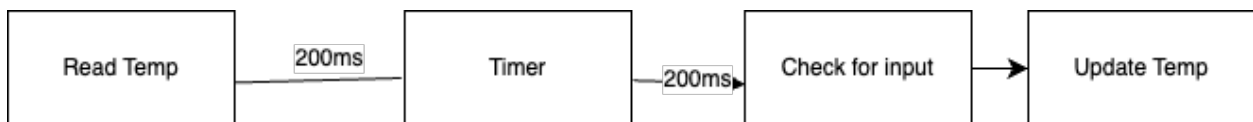
Overview:

The state machine manages three tasks executed upon a timer and button interrupts. The system monitors buttons to adjust the temperature set-point, reads a temperature sensor, and controls an LED representing a heater. It also reports the system state through the UART's output.

State	Desc	State Value
INCREASE_TEMP	Increase set temp by 1	Button input
DECREASE_TEMP	Decrease set temp by 1	Button input
READ_TEMPERATURE	Reads current temp	Timer interrupt
HEAT_ON	LED turns on	GPIO LED ON
HEAT_OFF	LED turns off	GPIO LED OFF

State Machine Diagram:

Task Scheduler:



Heat On Off:

