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**Simple Thermostat Report**

This program is a thermostat system built using the **TI LaunchPad**. It handles button inputs, temperature checks, heater control, and UART reporting. The TI LaunchPad has **built-in Wi-Fi**, which makes cloud connectivity simple. It uses **GPIO** for buttons, **I2C** for the temperature sensor, **PWM/GPIO** for the heater, and **UART** for status updates. Timers constantly check inputs and read the sensors.

Other options like **Microchip** and **Freescale** could’ve been used for the same system. Microchip uses the **ATWINC1500** for Wi-Fi, but it’s more complicated since it connects through SPI. Freescale works with **ESP32** for Wi-Fi using UART or SPI, which is flexible but still not as straightforward as TI’s built-in Wi-Fi.

For memory, the TI LaunchPad offers **128KB-512KB Flash** and **16KB-64KB RAM**, which is more than enough for this project. Microchip is efficient with smaller systems, offering **64KB-256KB Flash** and **8KB-32KB RAM**. Freescale has the most memory, with **128KB-1MB Flash** and **16KB-128KB RAM**, making it better for larger or more complex programs.