**Bill of Materials (BOM)**

This table lists all the components required to build the ESP32 Pulse & Temperature Monitoring System.

| **Component Name** | **Purpose in Project** | **Quantity** | **Notes / Specifications** |
| --- | --- | --- | --- |
| ESP32 | Main microcontroller | 1 | ESP32 DevKit V1 (recommended) |
| Heart Rate Pulse Sensor | Measure heart rate (BPM) | 1 | Standard 3-pin pulse sensor |
| I²C LCD 16x2 | Display all readings | 1 | With I²C backpack for easy wiring |
| IR Thermometer (MLX90614) | Measures body temperature | 1 | Object & ambient temperature sensing |
| 9V Battery | Powers the system | 1 | Rechargeable or disposable |
| 9V Battery Snap Connector | Connects battery to breadboard | 1 | Male DC barrel jack optional |
| Jumper Wires | Electrical connections | – | Male-male + female-male assorted |
| Breadboard | Circuit assembly & prototyping | 1 | 400–830 tie-points recommended |

**Optional / Useful Extras**

- USB cable (for programming ESP32)

- Power bank (alternative power source)

- Resistors (for stable signal if needed)

- Small enclosure / 3D printed case for protection