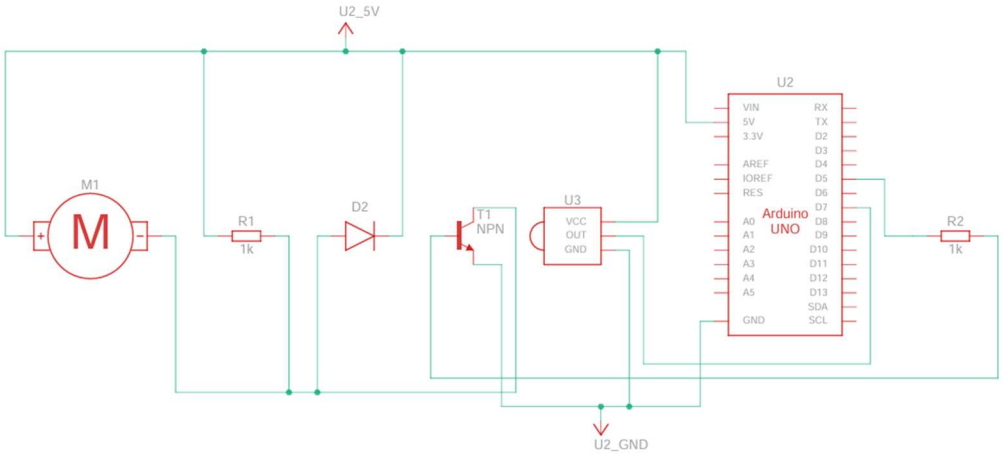
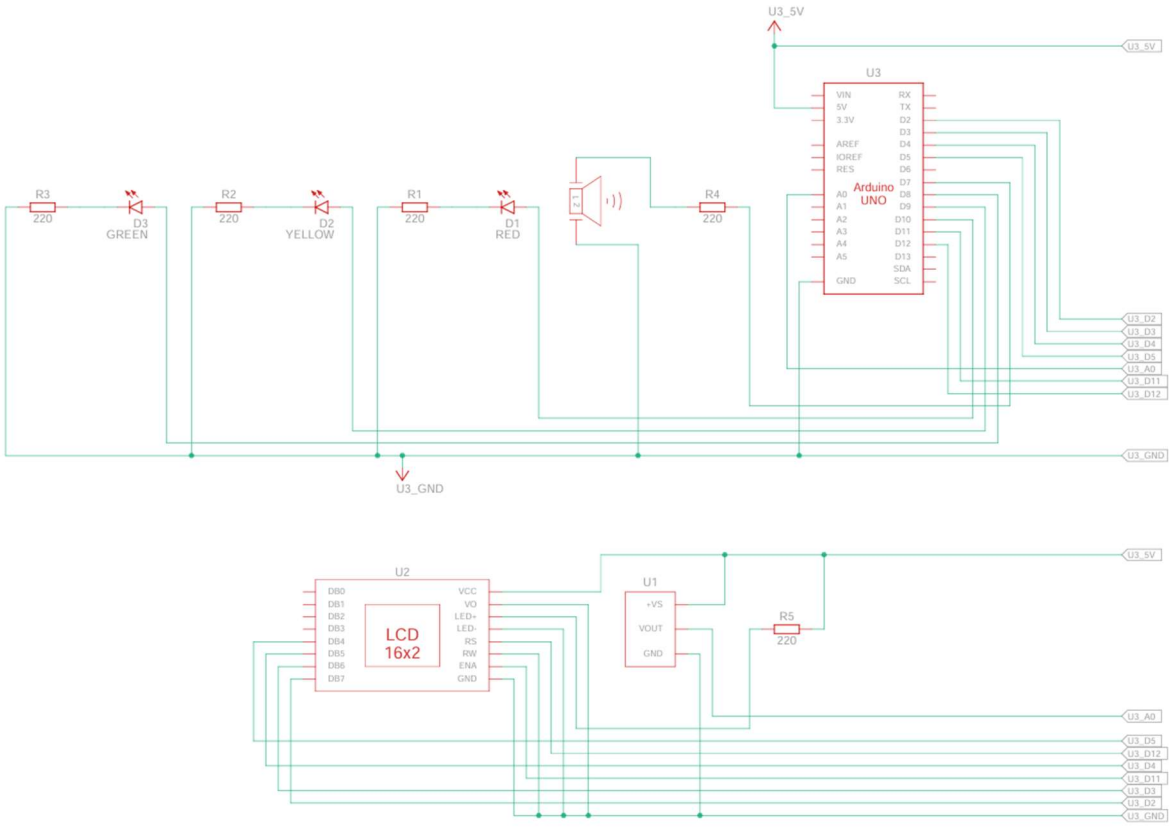
Schematic diagram for IoT system



Schematic diagram for temperature alert system



Connections for IoT system

- Connect enable pins (Pin 1, Pin 2) of L293D to 5V output of Arduino. This enables two H-Bridge channels inside the IC to drive two DC motors.
- Connect logic voltage input (Pin 16) of L923D to 5V output of Arduino. This defines the voltage (5V) logic of control signals .
- Connect motor/drive supply (Pin 8) of L293D to +ive of the 9V battery.
- Connect ground pins (Pin 4, 5, 12, 13) to ground of Arduino and -ive of the battery.
- Connect pin 2 of L293D to digital pin 6 of the Arduino.
- Connect pin 7 of L293D to digital pin 5 of the Arduino.
- Connect pin 10 of L293D to digital pin 11 of Arduino.
- Connect pin 15 of L293D to digital pin 12 of Arduino
- Connect first DC motor to Pin 3 and Pin 6 of L293D.
- Connect second DC motor to Pin 11 and Pin 14 of L293D.

Wiring Temperature Alarm System

- Connect **VOUT** of **LM35 sensor** to **Analog pin A0** on Arduino Uno.
- Connect **+VS** of LM35 to **5V** on Arduino.
- Connect **GND** of LM35 to **GND** on Arduino.
- Connect **Red LED** anode to **Digital pin D2** via **220Ω resistor (R1)**. Cathode to GND.
- Connect **Yellow LED** anode to **Digital pin D3** via **220Ω resistor (R2)**. Cathode to GND.
- Connect **Green LED** anode to **Digital pin D4** via **220Ω resistor (R3)**. Cathode to GND.
- Connect **RS** of LCD to **Digital pin D5** on Arduino.
- Connect **EN (Enable)** of LCD to **Digital pin D6**.
- Connect **DB4 (D4)** of LCD to **Digital pin D7**.
- Connect **DB5 (D5)** of LCD to **Digital pin D8**.
- Connect **DB6 (D6)** of LCD to **Digital pin D9**.
- Connect **DB7 (D7)** of LCD to **Digital pin D10**.
- Connect **RW** pin of LCD to **GND** (for write mode).
- Connect **VSS** to **GND**, **VDD** to **5V** on Arduino.
- Connect **VO** (contrast) via **220Ω resistor (R5)** between **GND and 5V**.
- Connect **LED+** of LCD (backlight) to **5V**, and **LED−** to **GND**.