
Tinkercad Project – Temperature Sensor with Arduino & LCD

Platform Used: Tinkercad Circuits

Microcontroller: Arduino Uno

Project Type: Temperature Monitoring System

Category: Embedded Systems / Electronics

Project Description

This project demonstrates a temperature monitoring system built using Arduino Uno in Tinkercad simulation environment. A temperature sensor reads ambient temperature and displays the real-time values on a 16x2 LCD display. The circuit was designed with proper connections, resistor configuration, and LCD interfacing.

Components Used

- Arduino Uno
- Temperature Sensor (TMP36 / LM35)
- 16x2 LCD Display
- Potentiometer (for LCD contrast control)
- Resistors
- Breadboard
- Jumper Wires

Working Principle

1. The temperature sensor outputs an analog voltage proportional to temperature.
2. Arduino reads the analog signal using ADC.
3. The temperature value is calculated in Celsius.
4. The processed data is displayed on the 16x2 LCD screen.
5. Simulation is verified using Tinkercad environment.

Prepared by

Siva Hari

Electronics / Embedded Systems / IoT Projects

Project Screenshot

