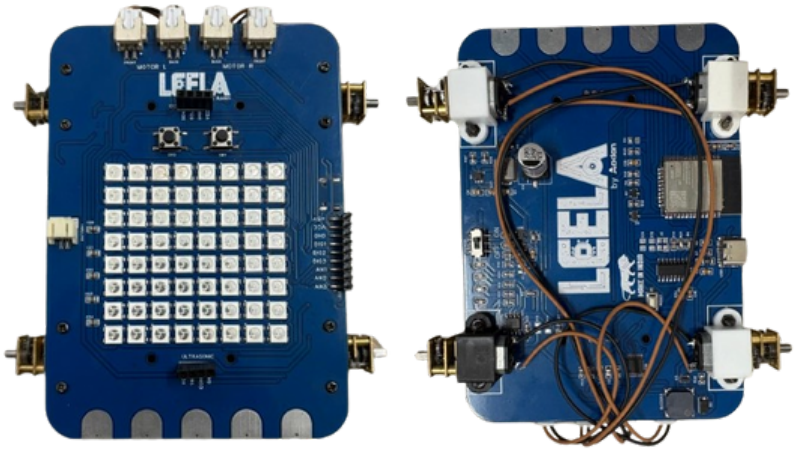
LEELA BOARD

- It is a learning/educational robotics controller board where the board itself acts as both the microcontroller and chassis.
- It supports both block-based coding and text-based coding.
- Supports STEM Education & Learning.

SPECIFICATIONS :-

- In build Wi-Fi + Bluetooth module
- On board 8*8 LED Matrix
- On board Motor Driver + 4 Motor Ports + 1 Battery Port
- Ultrasonic + I2C ports on board
- C Type port for interface
- 5 Touch Sensors on board



Aaklan Wonder Kit

ULTRASONIC SENSOR

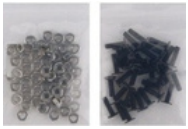
OLED DISPLAY

JUMPER WIRE

C Type Cable

Screw Driver

Li - ion Battery



Screws

DC Motors (4)

Motor Clip (4)

Wheels (4)

Leela Board

Aaklan Nexus Kit

ULTRASONIC SENSOR

IR SENSOR

PIR SENSOR

RAIN SENSOR

SOIL MOISTURE SENSOR

FLAME SENSOR

GAS SENSOR

LIGHT SENSOR

OLED DISPLAY

LED SET

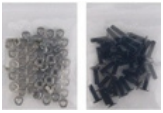
JUMPER WIRE

16*2 LED DISPLAY
WITH I2C MODULE

C Type Cable

Screw Driver

Li - ion Battery

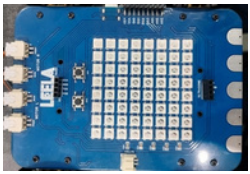


Screws

DC Motors (4)

Motor Clip (4)

Wheels (4)



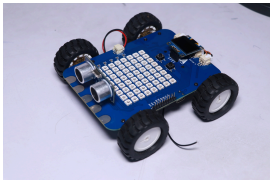
Leela Board

PROJECTS

SMART DISTANCE INDICATOR

- **Components Used:** Leela Board, Ultrasonic Sensor, HW Battery, OLED Display, C type Cable
- **Working Principle:**

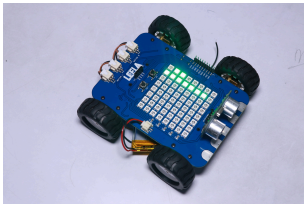
This project measures the distance of an object using an ultrasonic sensor. The detected distance is then displayed on the OLED screen in real time whenever an object comes within the sensor's range.



AUTO DETECT LAMP

- **Components Used:** Leela Board, Ultrasonic Sensor, HW Battery, C type Cable
- **Working Principle:**

This project works as an automatic lamp that changes color based on object detection. When an object is detected within 5 cm, the LED matrix glows red, and when no object is nearby, it shows green. It can also be used as a normal lamp for illumination.



PROJECTS

SMART EMOTION DISPLAY

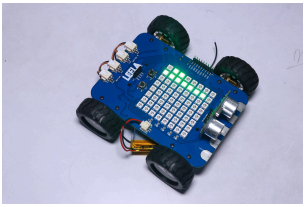
- **Components Used:** Leela Board, HW Battery, C type Cable
- **Working Principle:**

This project displays different emotions on the LED matrix. The expressions can be changed based on programmed inputs, making it suitable for interactive or decorative display purposes.

BLUETOOTH CONTROLLED CAR

- **Components Used:** Leela Board, Ultrasonic Sensor, HW Battery, C type Cable
- **Working Principle:**

This project allows the car to be operated wirelessly through a mobile phone using Bluetooth connectivity. Once paired, the car's movement can be controlled in different directions directly from the phone.

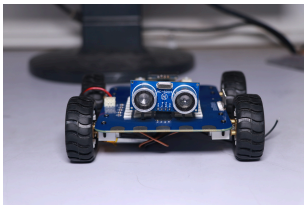


PROJECTS

ULTRASONIC DISTANCE INDICATOR

- **Components Used:** Leela Board, Ultrasonic Sensor, HW Battery, C type Cable
- **Working Principle:**

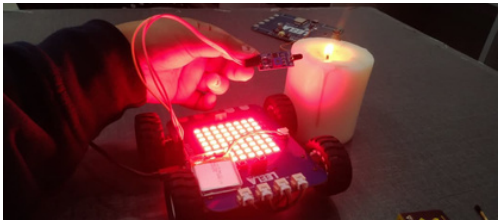
This project measures the distance of an object using an ultrasonic sensor. The detected distance is then displayed on LED Matrix in real time whenever an object comes within the sensor's range.



FLAME DETECTION ALARM SYSTEM

- **Components Used:** Leela Board, HW Battery, Type-C Cable, Flame Sensor, Buzzer
- **Working Principle:**

This project detects the presence of a flame using a flame sensor. When a flame is detected, the buzzer automatically sounds an alarm, and the 8×8 LED matrix glows red to indicate danger

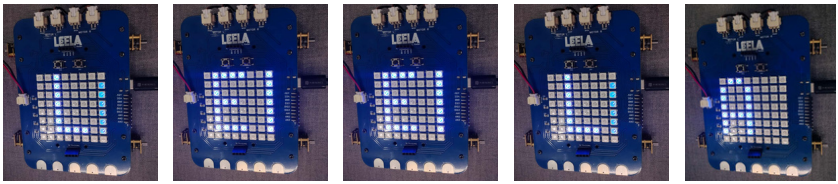


PROJECTS

BLUETOOTH MESSAGE DISPLAY

- **Components Used:** Leela Board, HW Battery, Type-C Cable
- **Working Principle:**

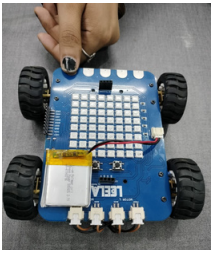
In this project, the Leela Board is connected to a mobile phone via Bluetooth. Using a Serial Bluetooth app, the user can send any message from the phone, which is then displayed on the LED matrix in real time.



TOUCH CONTROL ROBOT CAR

- **Components Used:** Leela Board, HW Battery, Type-C Cable, 4 Wheels, 4 Motors, 4 Motor Clips
- **Working Principle:**

This project uses the in-built touch sensors of the Leela Board to control the car's movement. Each touch sensor is assigned a specific function — Touch 1 for Forward, Touch 2 for Backward, Touch 3 for Right, Touch 4 for Left, and Touch 5 for Stop. Thus, the car can be easily operated through touch inputs.

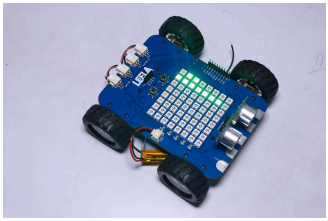


PROJECTS

MESSAGE DETECTION ROBOT CAR

- **Components Used:** Leela Board, HW Battery, Ultrasonic Sensor, Type-C Cable, 4 Wheels, 4 Motors, 4 Motor Clips
- **Working Principle:**

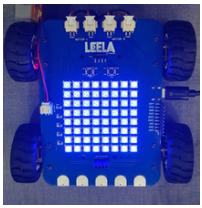
In this project, an ultrasonic sensor is connected to the dedicated port on the Leela Board. The sensor detects objects at different distances, and based on the detected range, specific messages are displayed on the LED matrix. The robot car can thus display real-time messages according to object proximity.

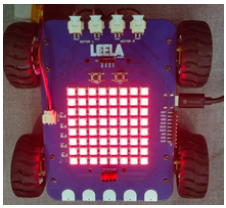


BLUETOOTH CONTROL LAMP

- **Components Used:** Leela Board, HW Battery, Type-C Cable
- **Working Principle:**

In this project, the Leela Board is connected to a mobile phone via Bluetooth using a Serial Bluetooth app. Through the app, all LEDs of the 8×8 LED matrix can be turned on to make it glow brightly, allowing it to be used as a decorative or functional lamp.



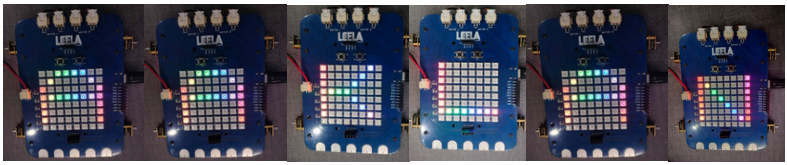


PROJECTS

LEARN ALPHABETS WITH LEELA

- **Components Used:** Leela Board, HW Battery, Type-C Cable
- **Working Principle:**

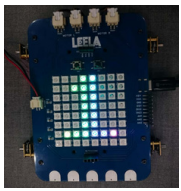
In this project, the Leela Board connects to a mobile phone via Bluetooth using a Serial Bluetooth app. The user can send numbered inputs (for example, 1 for A, 2 for B, and so on) to display corresponding alphabets from A to Z on the LED matrix, making it a fun and interactive learning tool.

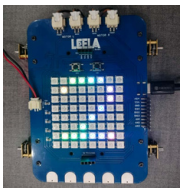


LEARN COUNTING WITH LEELA

- **Components Used:** Leela Board, HW Battery, Type-C Cable
- **Working Principle:**

This project displays counting numbers on the LED matrix of the Leela Board. It helps users learn and visualize numbers in a simple and interactive way.





PROJECTS

For Many More Projects .....

SCAN THIS