



IoT Learning Kit

Let's discover IoT!



IoT Learning Kit

Purpose:

Several technologies form together every IoT Application. And teaching all of them to novices at once is complex to achieve, given that hardware understanding (electronics) distracts understanding IoT core in software.

Thus, the IoT Learning Kit comes to solve this complex issue by taking baby steps in electronics, while advancing in software skills to build and understand IoT technologies faster, and even better.

And It's the first of its type, globally!



IoT Learning Kit

Who'll benefit?

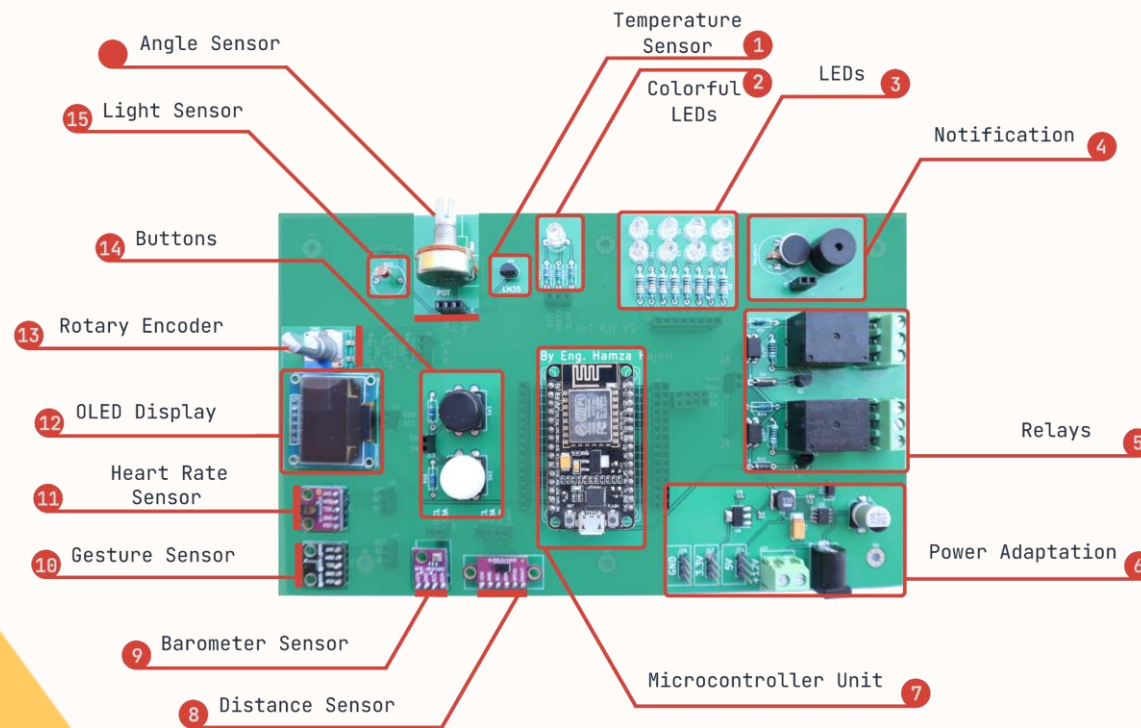
An advancing academy in training and teaching the fourth industrial revolution's courses.

The Kit comes with a training material to train segments of 9-25 years old, youngs to university graduates.

The Kit supports a wide area of applications, starting from very basic examples to advanced real applications.

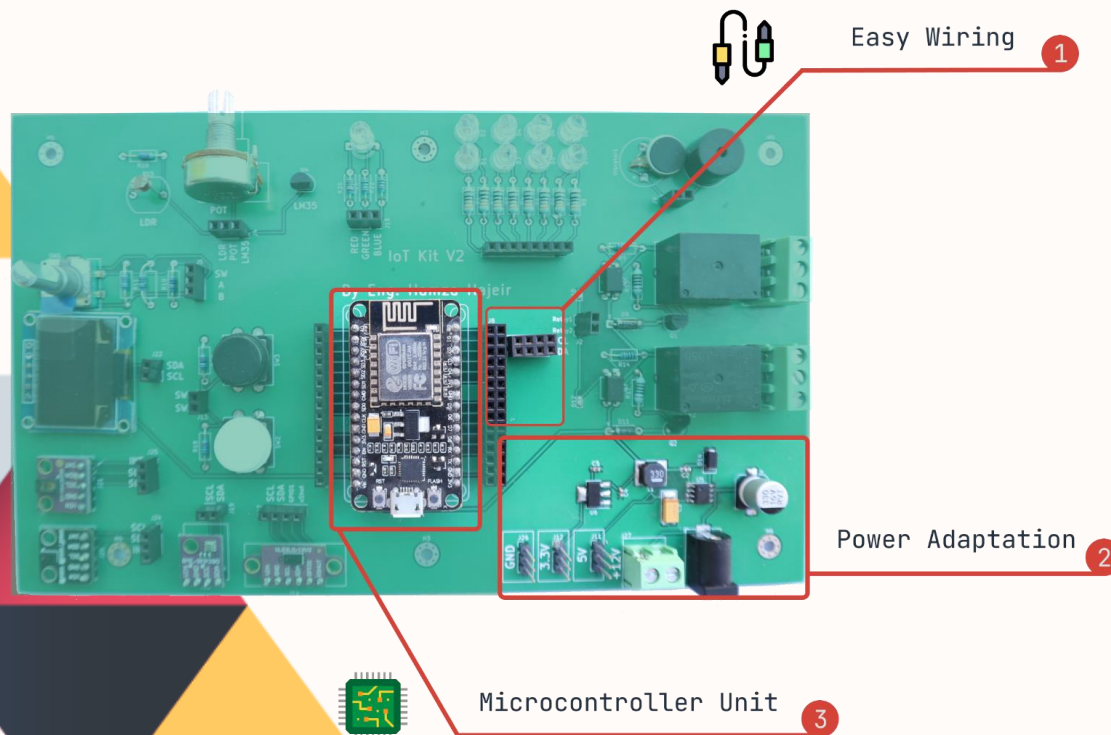
Components

Basically, the lot Kit contains these components, ranging from basic to advanced sensors, actuators, LEDs, and a microcontroller unit.



Main components

It provides an infrastructure of applying IoT applications:

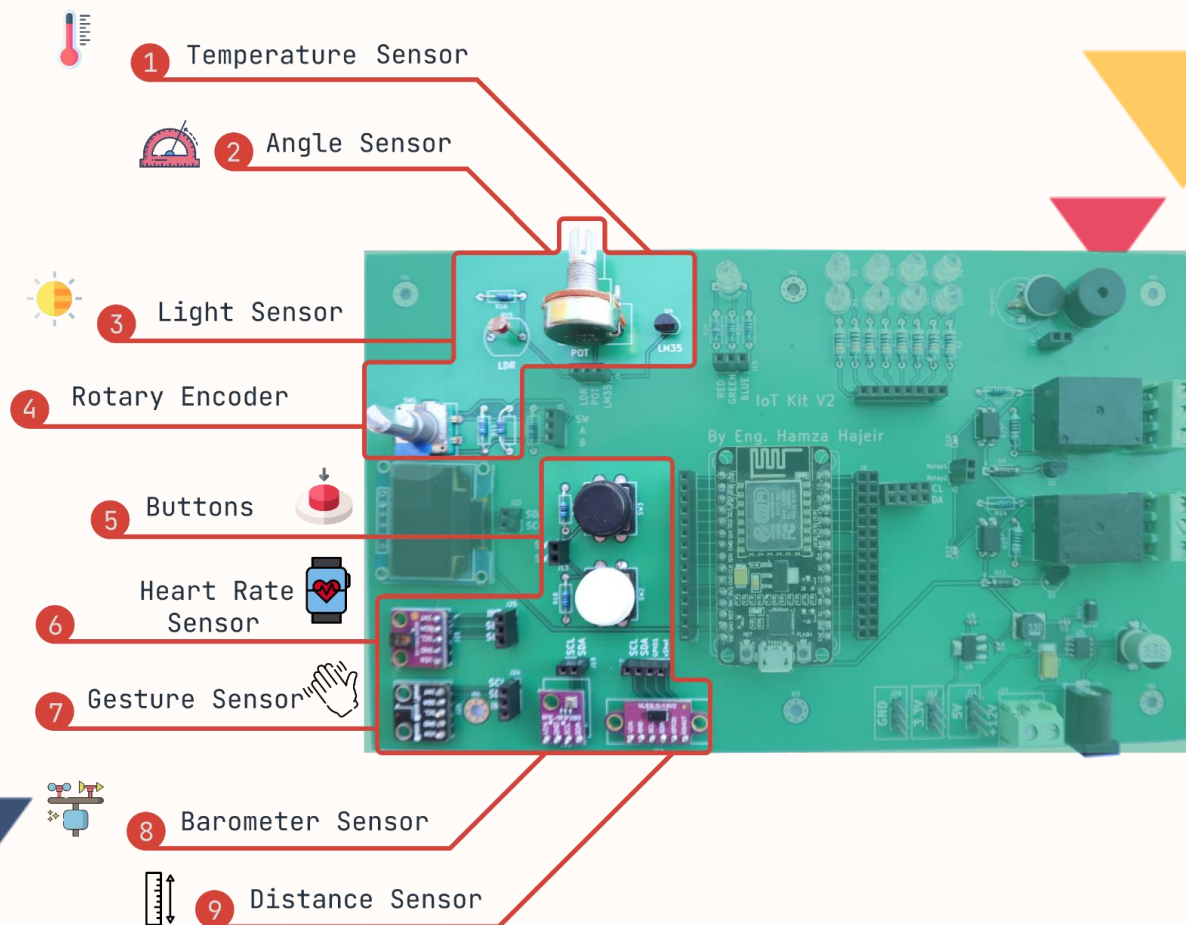


- Contains a powerful **Wi-Fi** enabled Microcontroller unit.
- A Power adaptation unit, supported to be supplied by a 12V adapter.
- Designed with ease of electronics wiring in mind.

Sensors

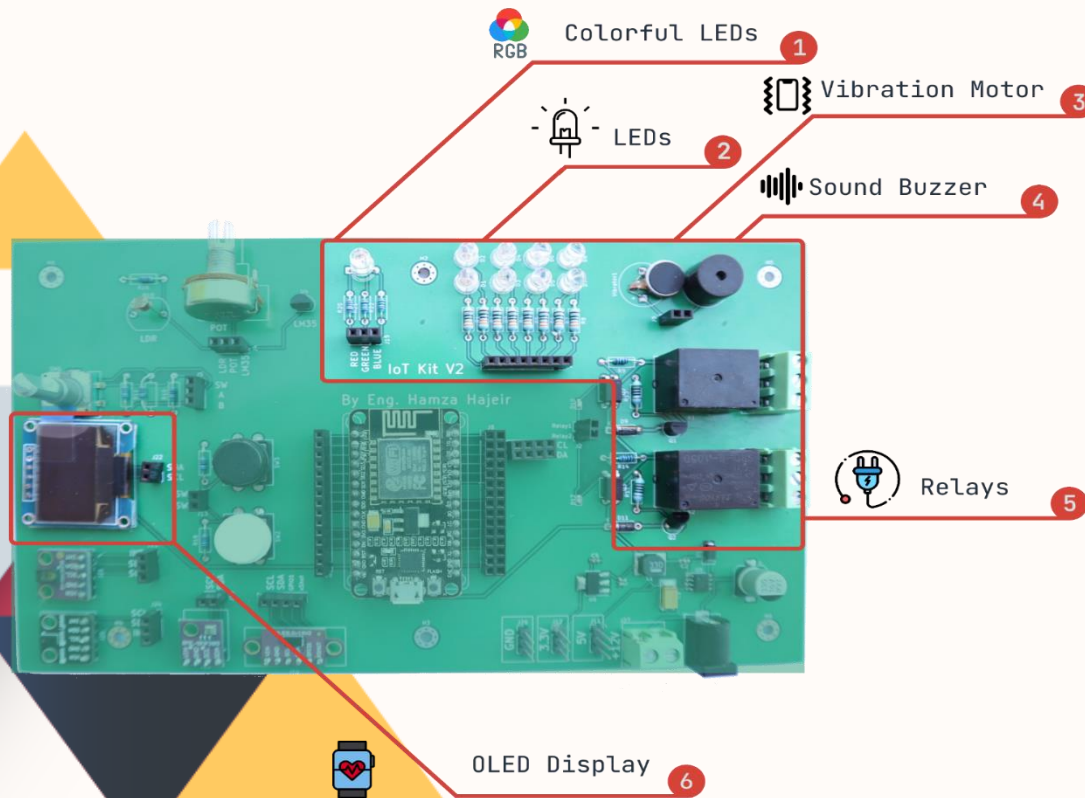
Contains a wide area of basic and advanced sensors, supports basic to advanced materials.

1. Temperature Sensor.
2. Angle Sensor.
3. Light Sensor.
4. Rotary Encoder.
5. Buttons.
6. Heart Rate and Pulse Oximetry.
7. Gestures Sensors.
8. Barometer Sensor.
9. Distance Sensor.



Actuators

Provides a variety of output controlling options. Where gives a large amount of matured applications in conjunction with embedded sensors.



1. Colorful LEDs (RGB).
2. LEDs.
3. Vibration Motor.
4. Sound Buzzer.
5. Relays*.
6. OLED Display.

** Relays are used to control home appliances.*



Applications

There are too many examples to apply and learn something new, In software, hardware, combination, system development, and IoT applications.

There's always something new to learn.

And here's some of the real-world applications the IoT Kit supports:

Pulse Oximetry device



IoT Light controller



IoT Weather station

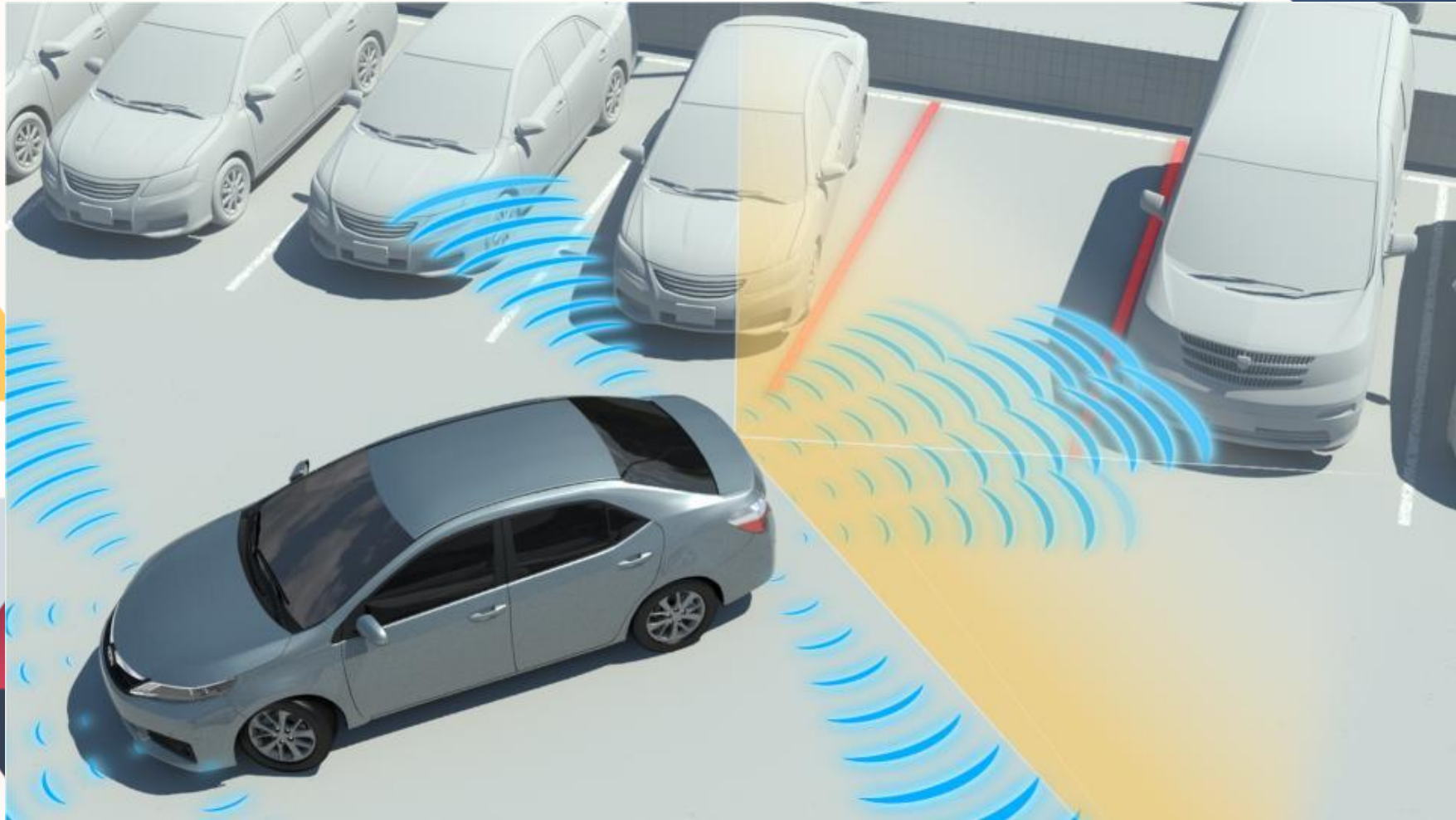




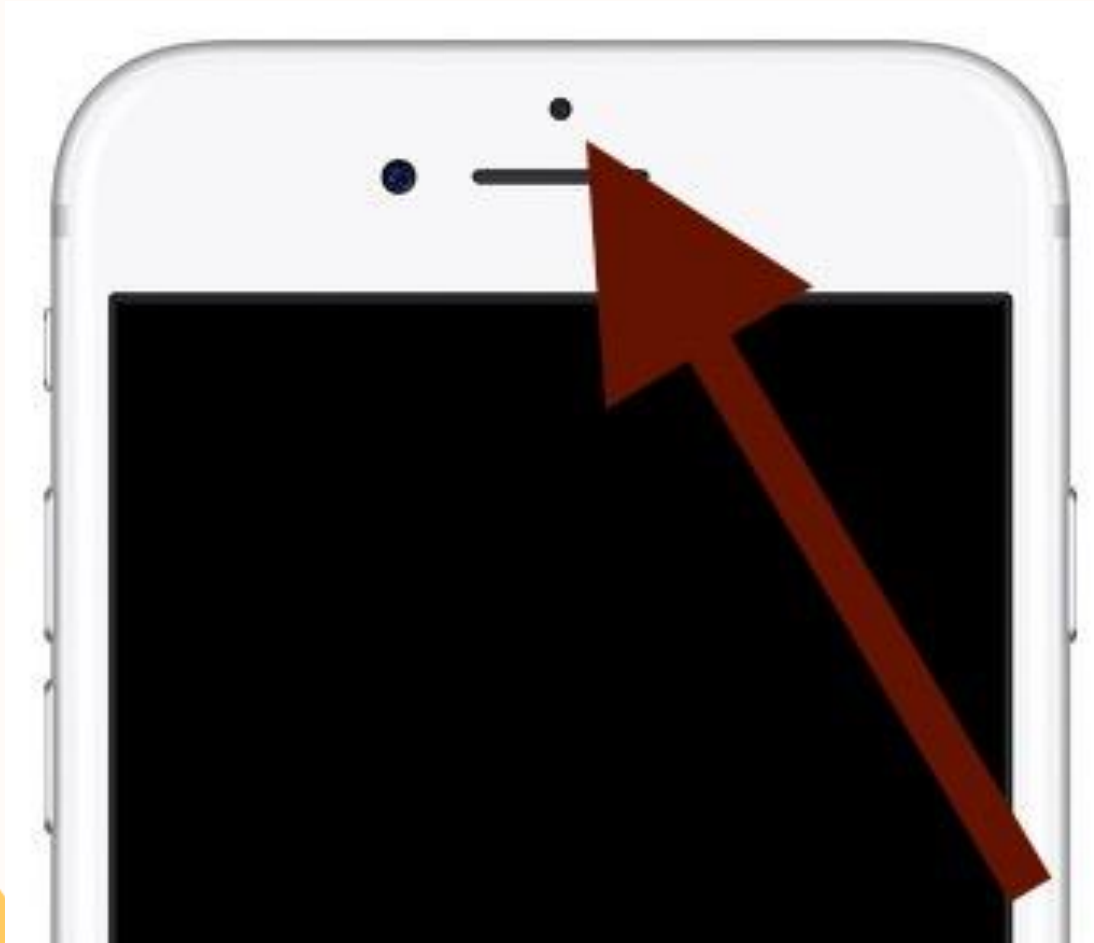
IoT Tank Monitoring System.



Car near object alarm



Mobile screen proximity





Support material

A set of basic and advanced examples are being built and improved continuously; the examples are published as an Open-Source project in GitHub.

Coming Soon:

- Video Contents
- Learning book