IOT/EMBEDDED LEARNING KIT

(A Perfect Base Station for Open Source Hardware Platform)

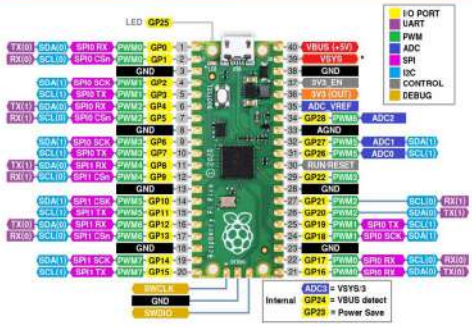
EMSOL
+ Embedded Solutions

3 IN 1 LEARNINIG KIT

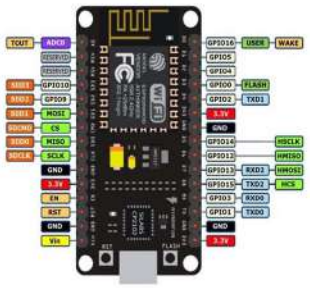
Emsol IoT/Embedded Learning kit is a 3 in 1 open source Hardware Learning base station of "**Arduino Nano, Node MCU (ESP8266) & Raspberry Pi PICO**".

The IoT Trainer Kit is designed by keeping in mind the latest technology on a Single board. This makes it really easy to design, experiment with, and test circuitry without soldering. Students can explore a wide variety of electronic concepts simply by Plug & Play of various Sensors & Interface modules and connecting with the respective open source controllers using flexible jumper wires without any Schematic diagram . All pinout diagrams are clearly marked and conveniently located on board. It is very useful in electronics laboratories for performing IoT/Embedded based experiments. It is also useful to build and test circuits as well as making projects related to IoT, integrating with the cloud.

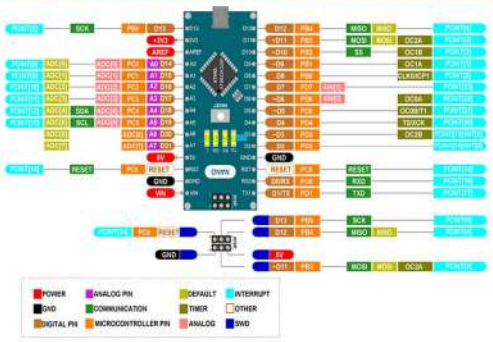
This kit is also used in industry as a part of the development of prototypes for products that are to be manufactured. By creating a prototype first using the kit, the product development team can test the prototype with end-users to determine if it's viable prior to costly manufacturing processes.



RASPBERRY PI PICO (RP2040)



NODE MUC (ESP 8266)



ARDUINO NANO (ATmega328P)

ON BOARD FEATURES

- Arduino Nano (**ATmega328P)**
- Node MCU **(ESP 8266)**
- Raspberry Pi PICO **(RP2040)**
- Female Socket for Arduino UNO Shields
- Seperate Power Lines for 5V, 3V3, GND
- 16 Pin Connector for Sensor/I2C/SPI/UART Module Interface
- 1 x 16x2 Alphanumeric Display, 1 x 0.96" OLED Display
- 1 x 7 Segment Display, 1 x RGB LED, 4 x LED
- 4 x Push Button, 1 x 5VDC Relay, 1 x Buzzer,
- 1 x Rotary Encoder, 1 x Potentiometer
- LM35 Temperature Sensor, LDR Light Sensor
- RTC Module (DS1307)
- Ultrasonic Sensor Moule, IR Module
- Stepper Motor driver with Stepper Motor
- Servo Motor interface with Servo Motor
- Dimension: 250*150 mm

SENSORS

OPTIONAL INTERFACES

-**Arduino UNO Shields** (Ethernet, Relay, Proto, Motor, LCD,Capacitive Touch, Can Bus, Smoke Detector, Joystick, GSM,GPRS, Micro SD, NFC/RFID, MP3 Player, Camera, GPS Logger, etc..)
-**Senor Modules** (Read Switch, Flame, Hall Effect, Shock, Temperature, Tilt, Heart Beat, Water Level, Photoresistor, Sound, UV Detection,etc)
-**I2C/SPI/UART Module** (EEPROM, Multiplexer, TFT Display,CAN, SD Card, BLE, Wi-Fi, GPS,GSM/GPRS, USB, Zigbee, LoRa,etc)

ARDUINO UNO SHIELDS

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