Selecting the Right ESP board for Your IoT Project

Most Common ESP Dev Board

The most common esp board for IOT is

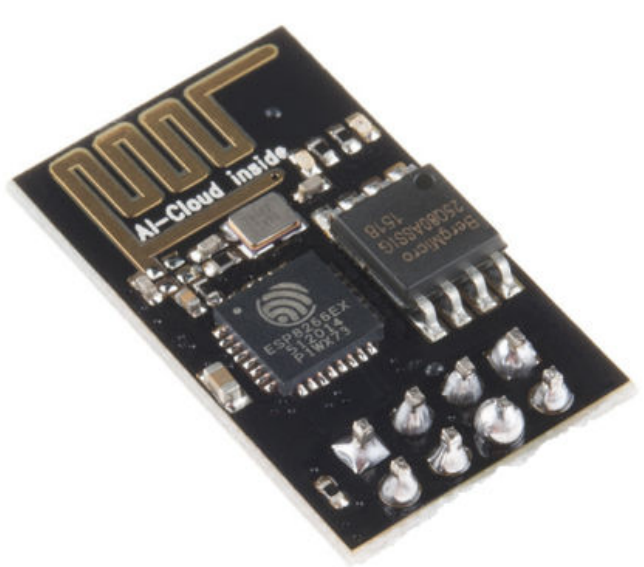
- ESP 32
- Node MCU

For CV ,AI and Image processing

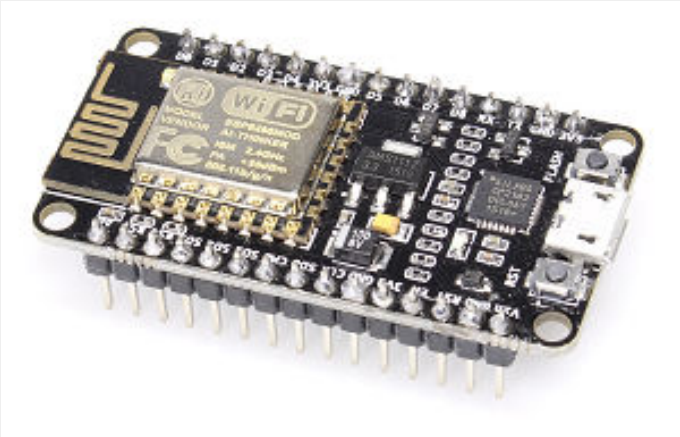
- ESP EYE
- ESP CAM

ESP8266-01

- Ai-Thinker
- TCP/IP
- WPA or WPA2
- 80MHz
- 32 kib instruction Ram
- 1Mb of Flash
- Serial UART
- I2C
- 3.3V
- 70mA -300mA
- 2 GPIO For use

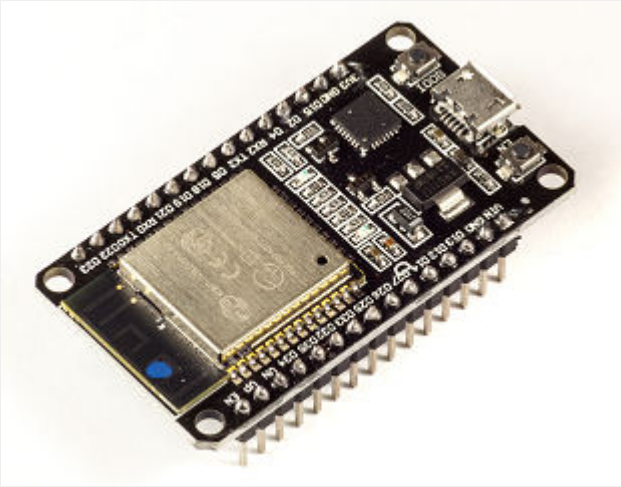


ESP 12 E (Node MCU)



- 4Mb Flash size
- 80MHz
- 50Kb RAM(usable)
- UART
- SPI
- I2C
- WPA/WPA2 authentication
- Digital pin 16
- Analog pin 1

ESP 32



- 18 ADC Pins
- 3 SPI
- 3 UART
- 2 I2C
- 16 PWM
- 2 DAC(Digital to Analog Converter)
- 10 Capacitive sensing GPIO
- Bluetooth 4.0
- 32 bit

ESP EYE

- Dual Core processor with bluetooth and wifi
- 8 MB S RAM
- Camera 2MP
- Audio Microphone
- 4MB Flash
- SPI
- GPIO 1 INPUT

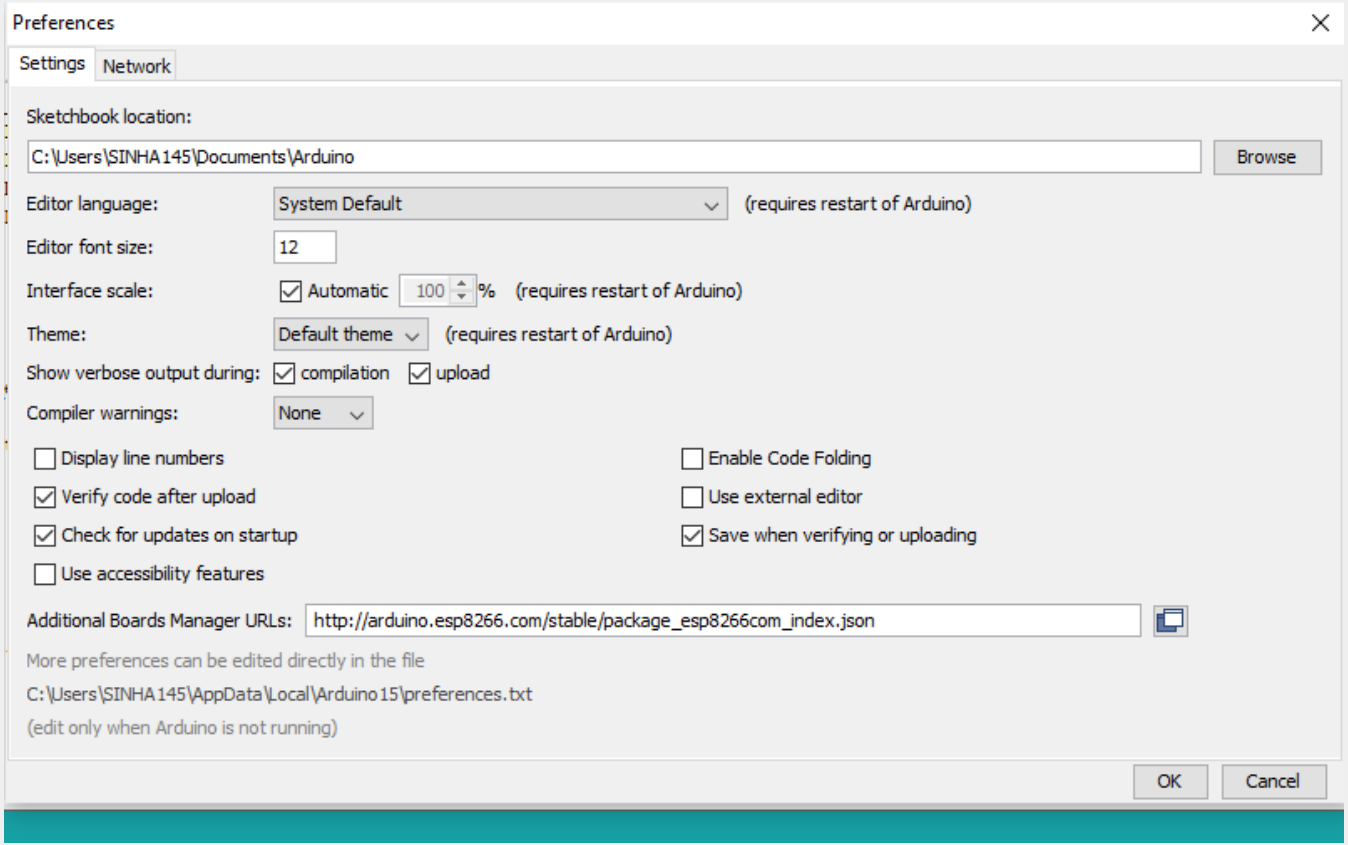
ESP 32 Cam

- WiFi/ BT
- 32 bit CPU
- 520 kb Inbuilt 4 Bb External RAM
- UART
- I2C
- PWM
- ADC
- DAC
- Support Camera
- TF card
- Video Streaming
- 10 GPIO for USE

Where I can program esp dev boards

- Arduino IDE
- Micropython
- Circuit Python
- MonGoose
- LUA

How to add new boards to Arduino IDE

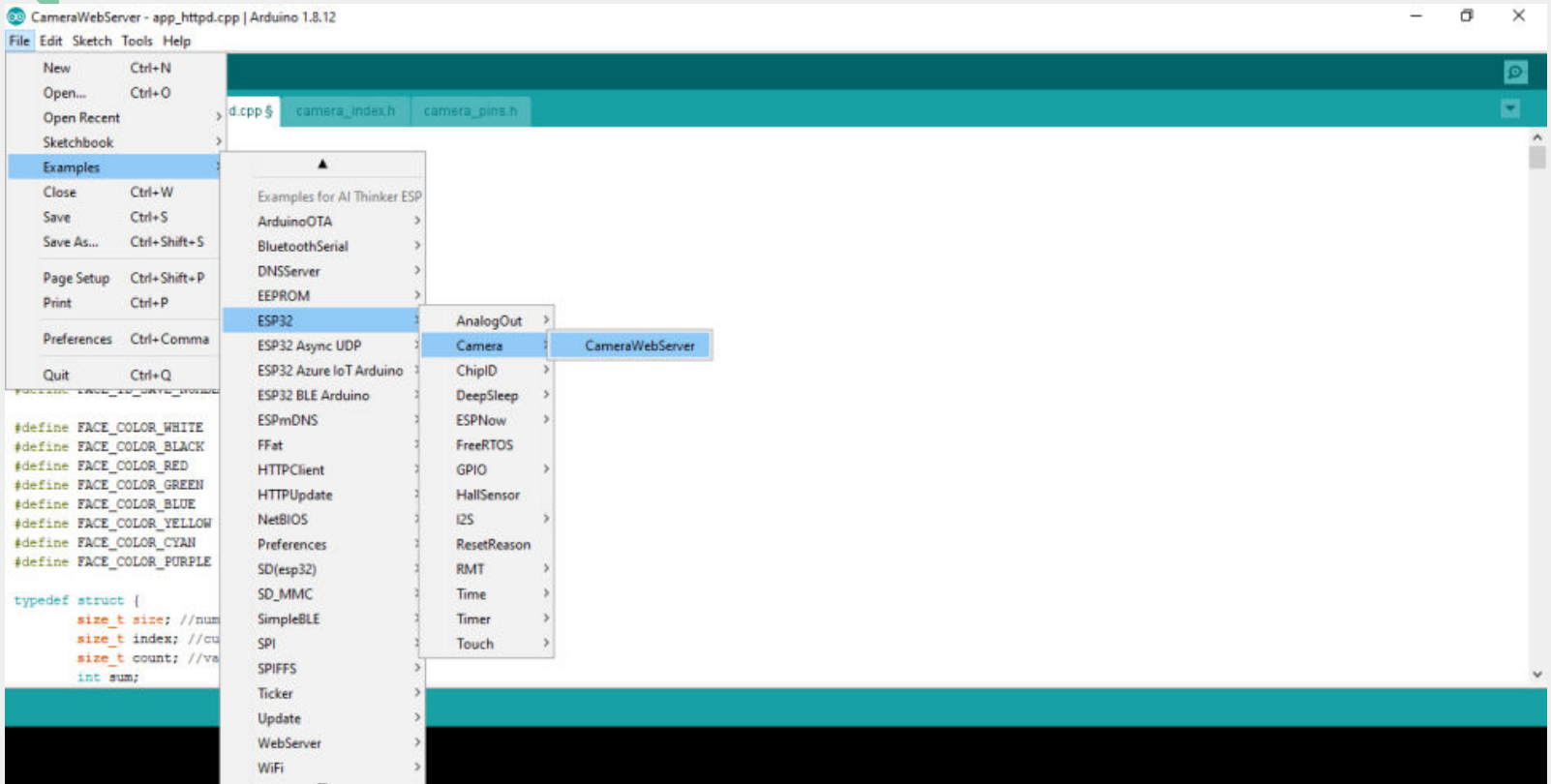


How to choose Right board for IOT project.

- Decide Features
- Type of connectivity you need to achive that
- GPIO pins need for that
- Memory needed
- USE

AI and Image processing need
 If no GPIO then ESP EYE
If need GPIO
Use
ESP32 CAM

Make Face Recognition Camera Using ESP 32



Thank You