ESP32 run steps

1- Windows8

you have to install windows 8.

2- Ubuntu14.04

you have to install Ubuntu14.04.

ESP32 with Arduino IDE on Ubuntu14.04 works.

3- installing ESP32 for Arduino IDE on Ubuntu14.04

4- Wiring of ESP32

GPIO0 is pulled to low.

GPIO2 is pulled to low.

assert EN to low to "reset" the ESP32.

5- Downloading Bin Into the ESP32

6- ESP32 in Nano32 by Gravitech

7-FTDI Is Used in Nano32

the ubuntu setup that was outlined in the earlier steps is being used with ESP32 in nano32 by gravitech.

8- ESP32 With Arduino IDE Hello World Using Blink

9- ESP32S by AiThinker

Quality supply is highly recommended to power up the ESP32S. While using only the CP2102 to supply 3V3 to ESP32S, the status is intermittent. Sometimes, the WiFi is up, sometimes not. While the WiFi is up, the serial comm on CP2102 definitely down. A screenshot of the erroneous state is here.

A breadboard powersupply board for MK302 is used with a DC wall adapter as the supply. the 3V3 regulated supply from MK302 is sufficient to power the ESP32S.

10-ESP32S

Table 4: Strapping Pins

Voltage of Internal LDO (VDD_SDIO)			
Pin	Default	3.3V	1.8V
MTDI	Pull-down	0	1
Booting Mode			
Pin	Default	SPI Flash Boot	Download Boot
GPIO0	Pull-up	1	0
GPIO2	Pull-down	Don't-care	0
Debugging Log on U0TXD During Booting			
Pin	Default	U0TXD Toggling	U0TXD Silent
MTDO	Pull-up	1	0

Timing of SDIO Slave					
Pin	Default	Falling-edge Input Falling-edge Output	Falling-edge Input Rising-edge Output	Rising-edge Input Falling-edge Output	Rising-edge Input Rising-edge Output
MTDO	Pull-up	0	0	1	1
GPIO5	Pull-up	0	1	0	1

The table describes the pin status to program the ESP32S via Arduino IDE or IDF or SDK.

11- ESP32 With IoT Development Framework (IDF)

The ESP32 with IoT Development Framework IDF setup earlier works like a charm with nano32.