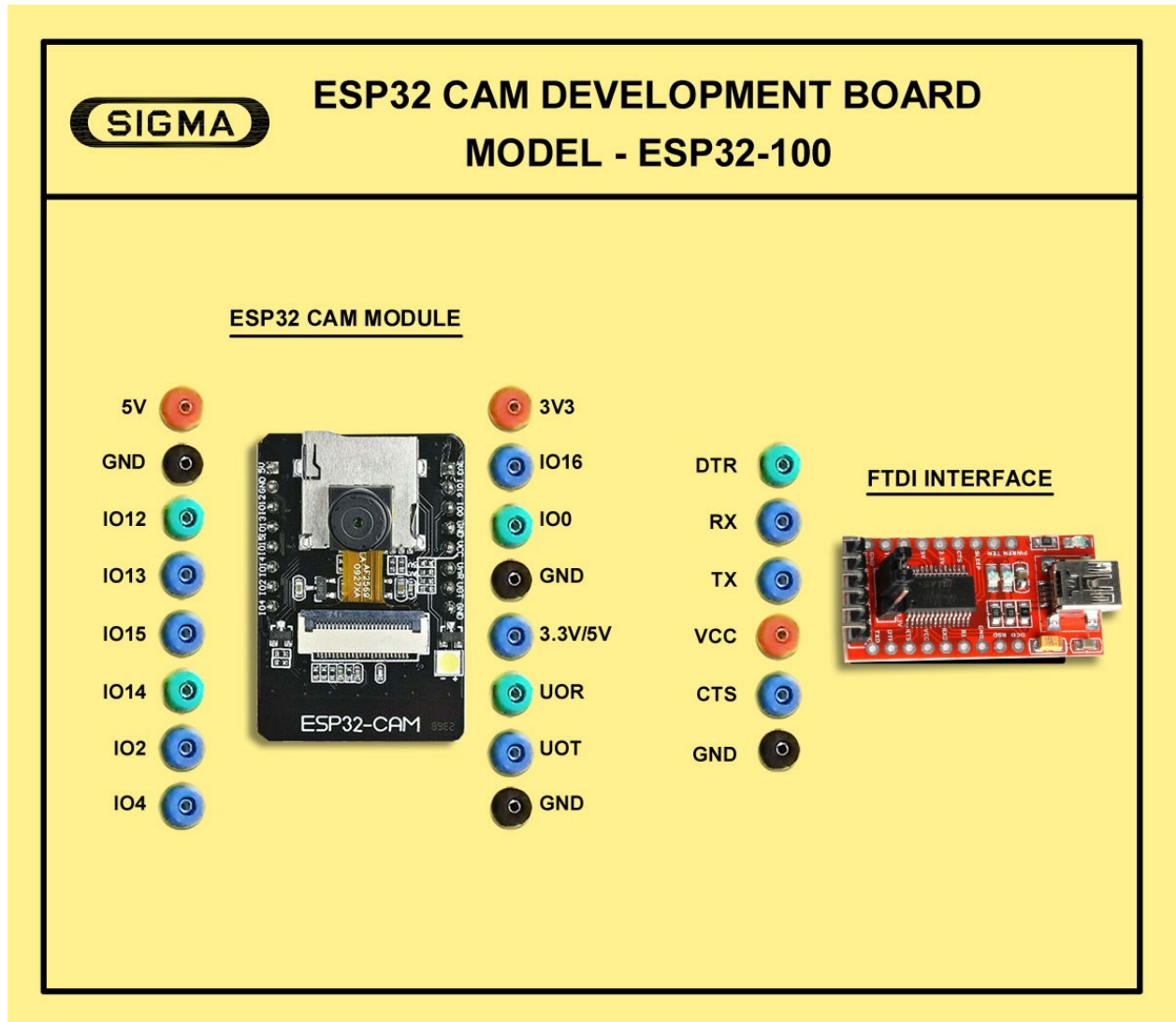




ESP32 CAM DEVELOPMENT BOARD TRAINER
MODEL - ESP32-100

This trainer has been designed with a view to provide practical and experimental knowledge of ESP32 CAM Development Board.



SPECIFICATIONS

1. Hardware

Following Parts and Modules are assembled on Single PCB of size - 12 "x 9"

1. ESP32 CAM Development Board

1. ESP32-CAM Processor: ESP32-D0WD
2. OV2640 camera with flash
3. Onboard TF card slot, supports up to 4G TF card for data storage
4. Bluetooth - Bluetooth 4.2 BR/EDR and BLE
5. WiFi - ESP-32S - IEEE 802.11 b/g/n/e/i
6. WiFi video monitoring and WiFi image upload
7. Built-in Flash: 32Mbit
8. RAM: Internal 512KB + External 4M PSRAM
9. Onboard PCB antenna
10. Output image format: JPEG (OV2640 support only), BMP, GRAYSCALE
11. Peripheral interface: UART/SPI/I2C/PWM
12. IO port: 9
13. UART baud rate - 115200bps
14. Power supply: 5V

2. Modules and Hardware:

1. FTDI Module

2. Accessories

1. USB A to B cable : 1 No
2. Power Supply Adaptor : 5 V DC, 1A
3. Pen Drive with Software, Library, Driver, Codes, Soft Copy of Manual : 16 GB
4. Printed Practical Manual : 1 No.
5. E-Books for IOT Subject : 10 Nos. in PDF Format
6. Mp4 Video Class for IOT Subject : 40 Nos
7. Excitation accessories for each sensor

3. Cabinet and PCB

The complete circuit diagram is screen printed on component side of the PCB with circuit and Parts at the same place. The PCB with components on front side is fitted in elegant wooden box having lock and key arrangement. The acrylic cover is fitted on PCB to safeguard parts. It works on 230 V AC Supply.

EXPERIMENTS

A. Theory Experiments

1. To understand theory and working of ESP32 CAM Development Board
2. To understand theory of OV2640 Camera Module
3. To understand theory of FTDI module

B. Practical Experiments

1. To live stream the video on the monitor / TV screen using ESP32 CAM development board and FTDI module