Getting Start ESP32: ESP32 GPIO + ESP32 Interface

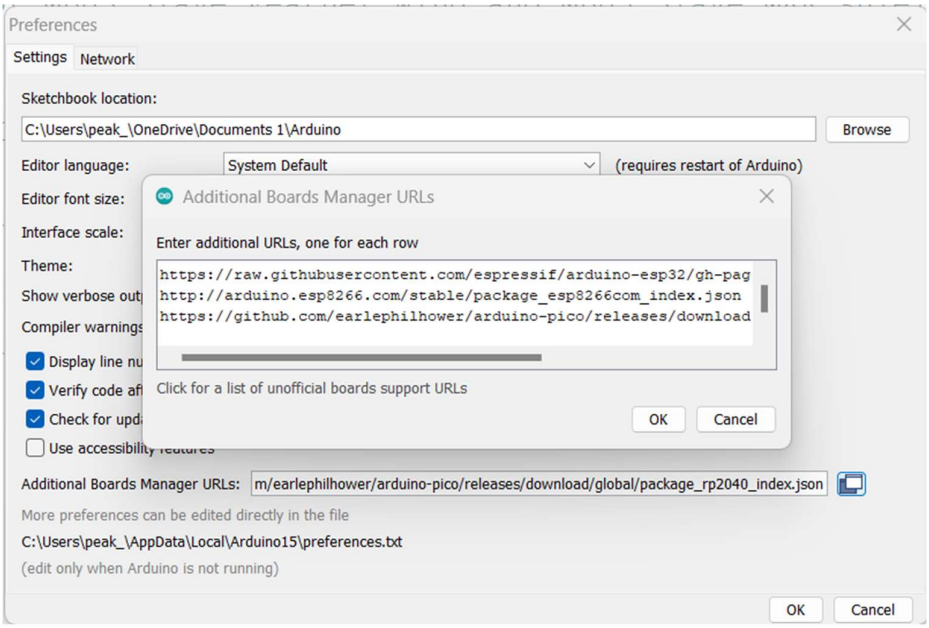
Mission 1/12 -- Arduino IDE 2.3.4 Install + Blink Test

1. Read https://www.cybertice.com/p/5089
2. Read https://support.arduino.cc/hc/en-us/articles/360019833020-Download-and-install-Arduino-IDE
3. Download "arduino-2.3.4-windows.exe"(@20241224) and Install

Windows, Linux or Mac

Just Download

4. Add ESP32 Board URLs: File → Preference → <Add 3 Line > → Ok → Ok



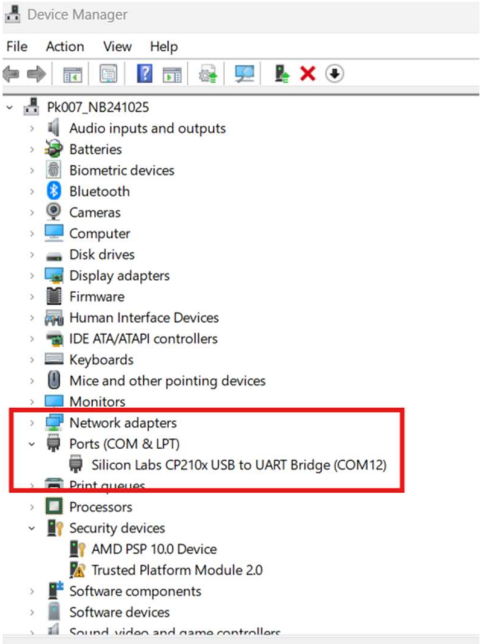
Additional Boards Manager URLs:
https://raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package_esp32_index.json
http://arduino.esp8266.com/stable/package_esp8266com_index.json
https://github.com/earlephilhower/arduino-pico/releases/download/global/package_rp2040_index.json

5. Add ESP32 Board: Tools → Boards → Board Manager

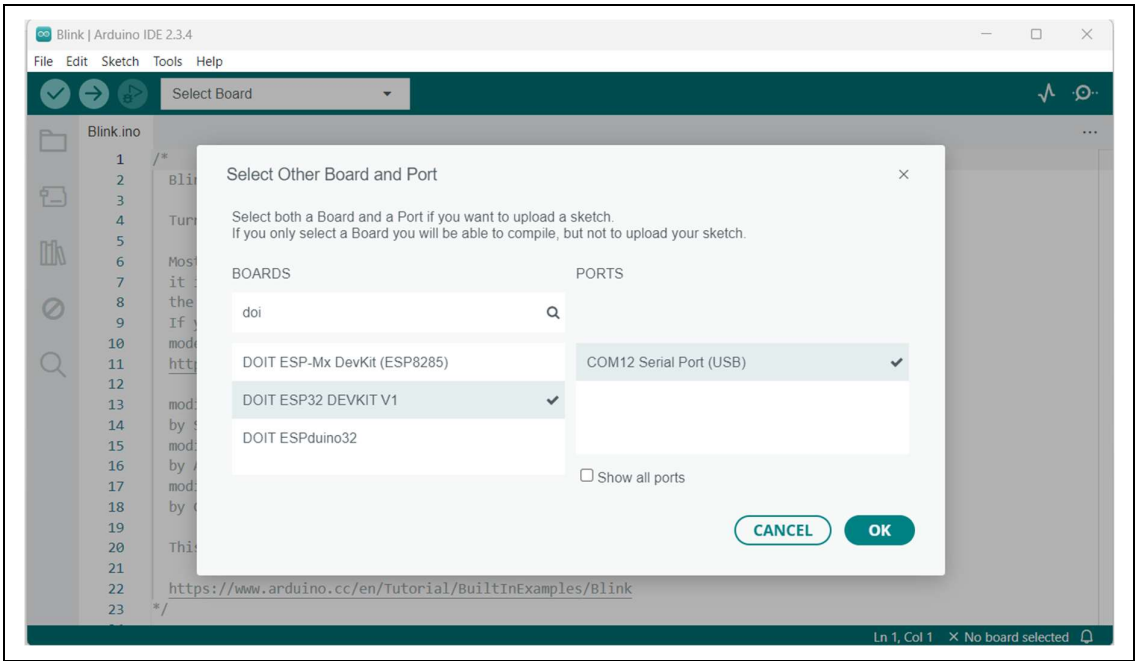
Filter = esp32

Select → esp32 by Espressif System → Version 2.0.14 → Install

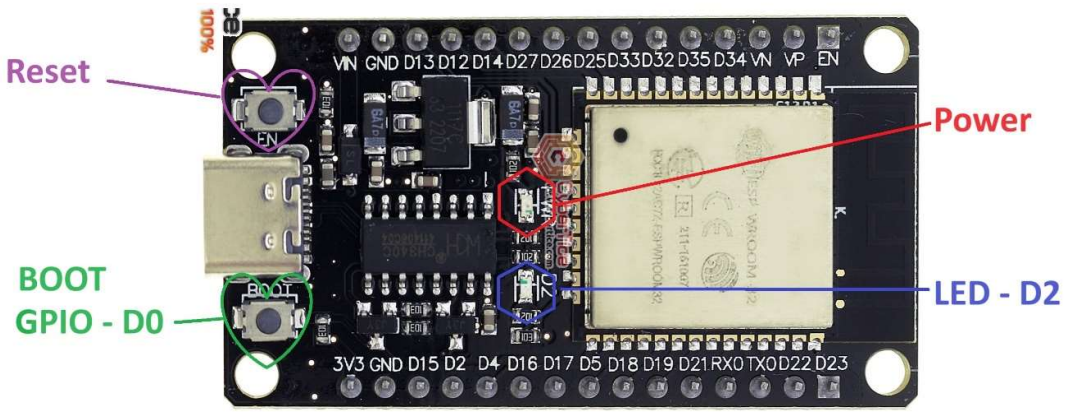
6. Read https://www.allnewstep.com/b/144
7. Connect ESP32 Board to PC
8. Check Comm Port

Search – Device Manager	
	CP2102 Driver >> https://www.silabs.com/interface/usb-bridges/classic/device.cp2102?tab=specs
ESP32 at COM 12	
	

9. Blink Test Code: File → Example → 01.Basic → Blink
10. Select Serial Port: Tools → Port → Com X
11. Select Target Board: Tools → Boards → ESP32 Arduino → DOIT ESP32 DEVKIT V1



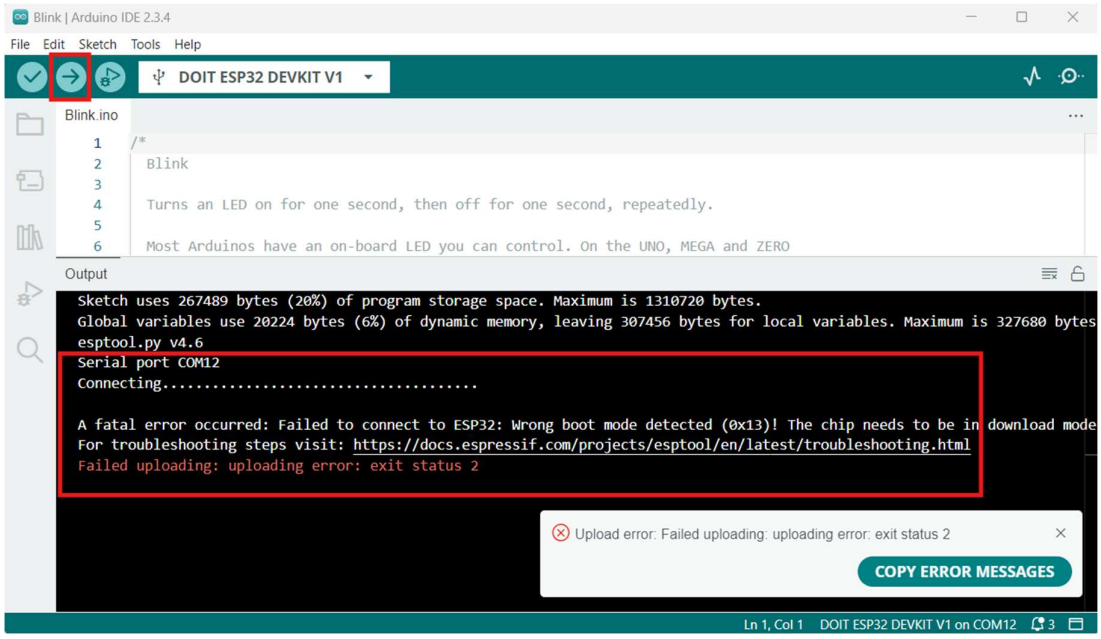
12. Upload Code to Target Board: Sketch → Upload
13. ESP32 Pinout Reference https://randomnerdtutorials.com/esp32-pinout-reference-gpios/



Blink Test: On Board LED = LED_BUILTIN = GPIO D2

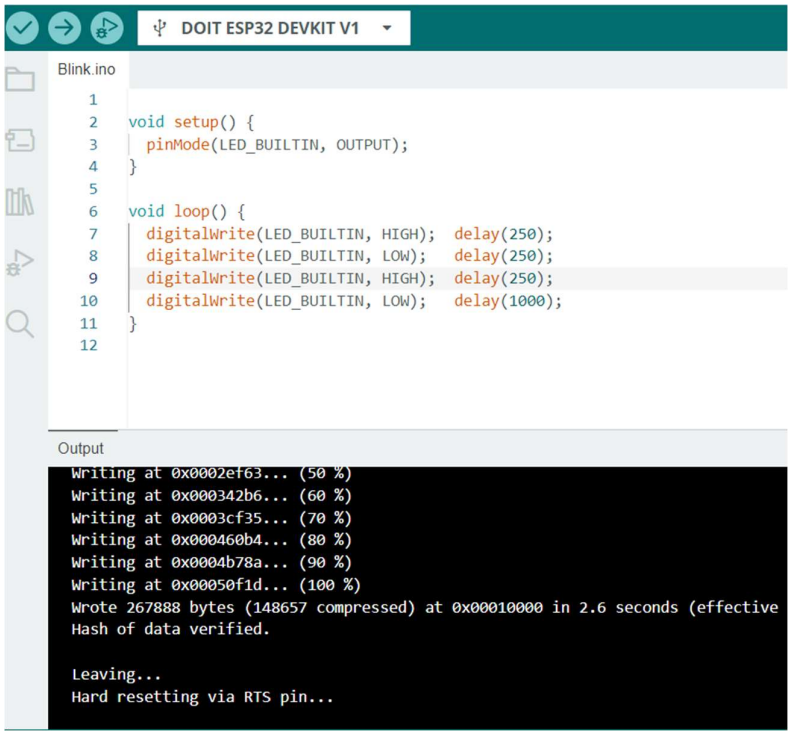
Note:

1. สามารถกด ➔ เพื่อ Upload Code ได้

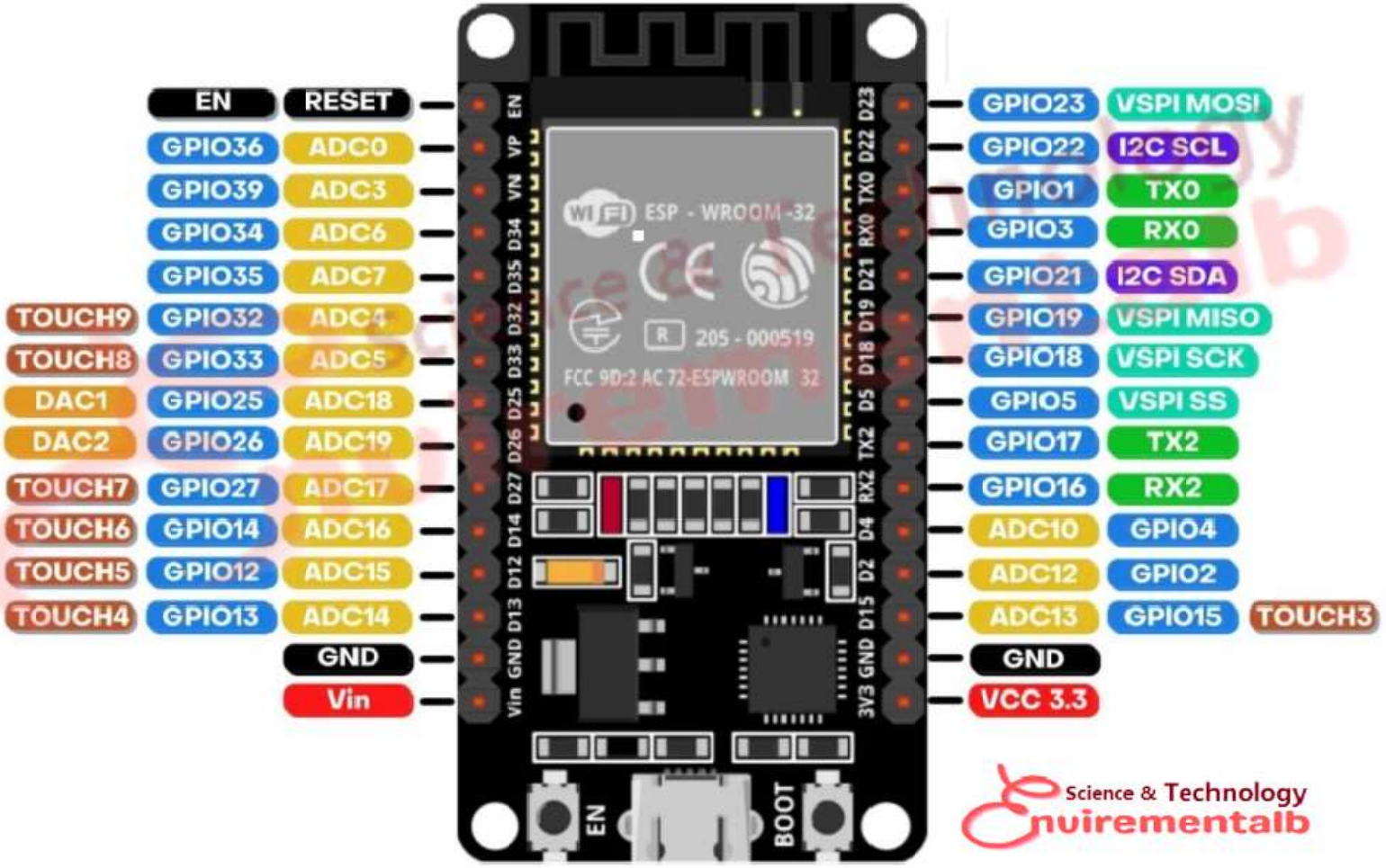


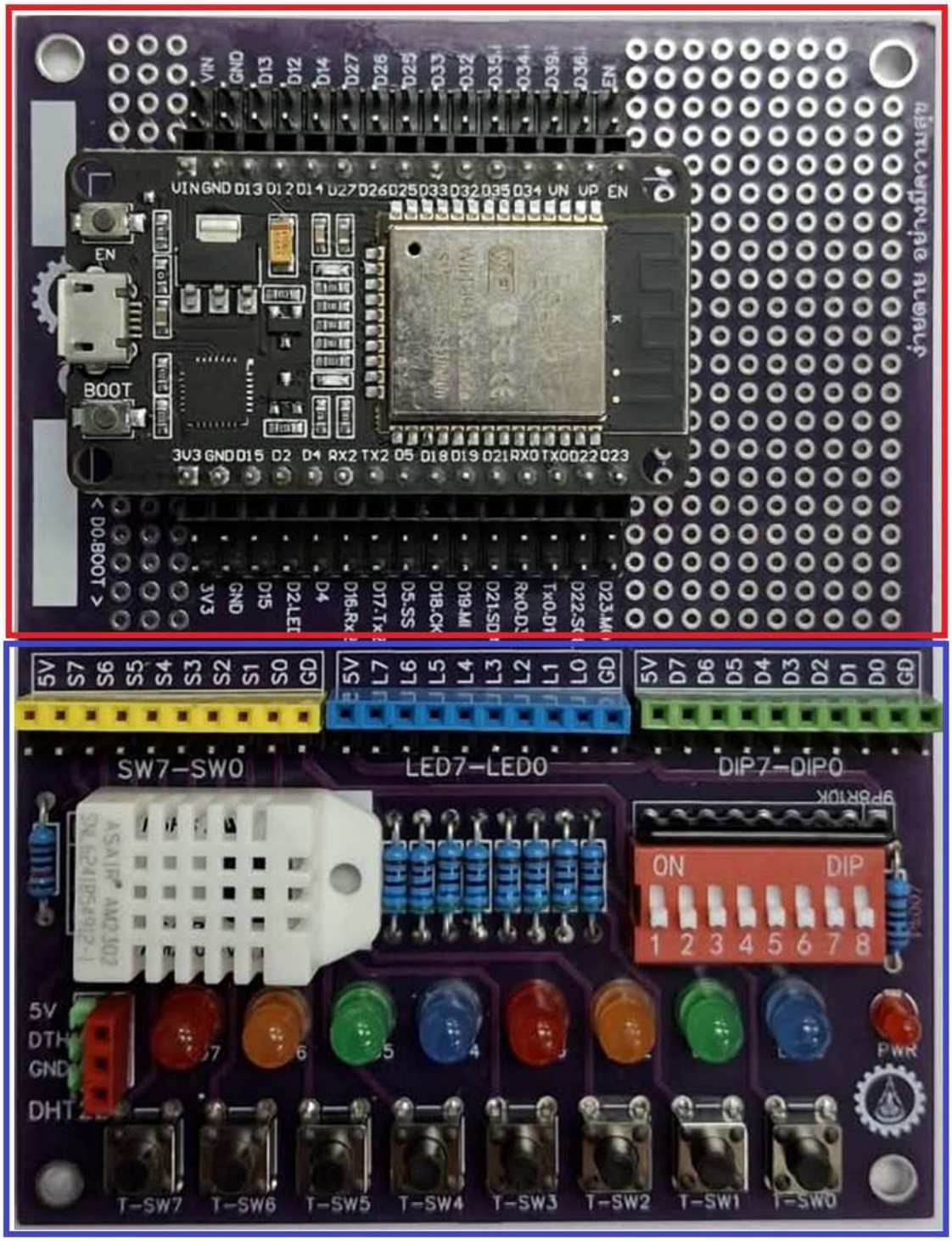
2. อาจเกิด Upload Error – แก้ไขโดยการกดปุ่ม BOOT ค้างไว้แล้วกด Upload รอจนเริ่มการ Upload ค่อยปล่อยปุ่ม BOOT

3. ลองเปลี่ยนโค้ดเป็นดังรูป แล้ว Upload



ESP32 DEV-KIT V1 - PINOUT DIAGRAM




VIN GND D13 D12 D14 D27 D26 D25 D33 D32 D35 D34 VN VP EN
EN
BOOT
3V3 GND D15 D2 D4 RX2 TX2 D5 D18 D19 D21 RX0 TX0 D22 D23
< D0.BOOT >
5V S7 S6 S5 S4 S3 S2 S1 S0 GD
5V L7 L6 L5 L4 L3 L2 L1 L0 GD
5V D7 D6 D5 D4 D3 D2 D1 D0 GD
SW7-SW0
LED7-LED0
DIP7-DIP0
ON
DIP
1 2 3 4 5 6 7 8
5V
DTH
GND
DHT
PWR
T-SW7 T-SW6 T-SW5 T-SW4 T-SW3 T-SW2 T-SW1 T-SW0