Quick Start Guide
ESP32-C3 Development Board
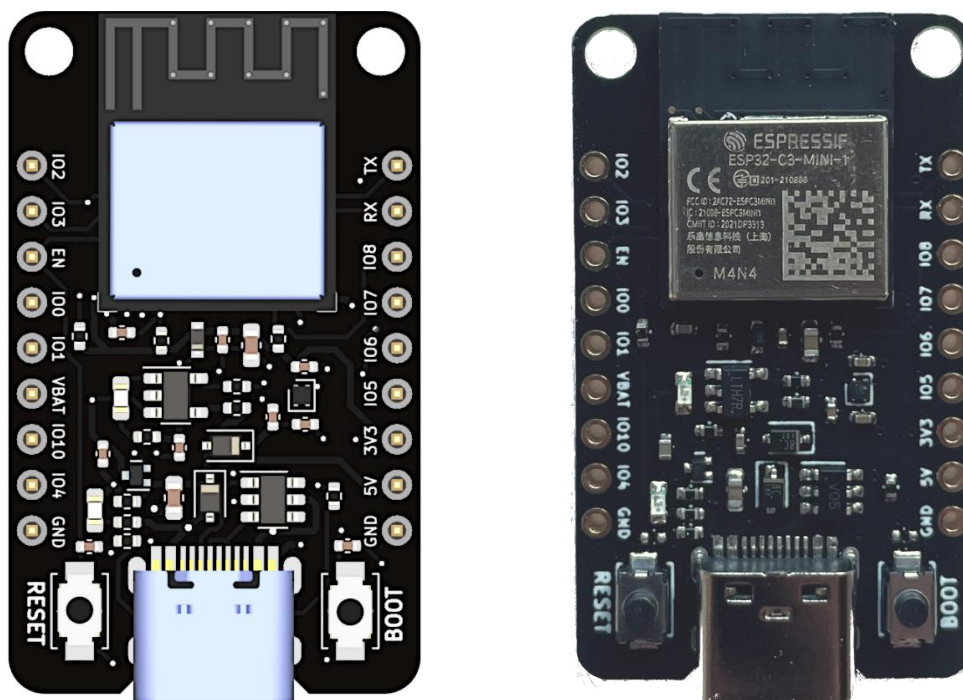

Table of Contents

Description

Overview

- Development Board with ESP32-C3-MINI-1-N4 Modul
- Single-Core CPU up to 160MHz with PCB-Antenna
- 4MB Flash, 384KB ROM, 400KB SRAM und 8KB SRAM in RTC
- Simpe programming with Arduino DIE or VS-Code
- WiFi 2.4GHz (IEEE 802.11 b/g/n) and Bluetooth LE/Bluetooth Mesh
- Perfect for iOT-Applications
- Power Input and programming via USB-TYP-C
- Reset and Boot Button, for getting into Download Mode
- Integrated Battery Power Management IC. Battery charging via USB Connector.
- Output Voltage 5V and 3,3V
- 12 programmable GPIOS
- I2C, SPI, USART Communication Interfaces for Sensors, actuators displays etc.
- Included Pin Headers 2x9

Power Delivery

- Regulated Powerinput 5V (min. 500mA)
- Powerinput via VBAT-Pin with Li-Po/Li-Ion Battery (Max 4.2V).
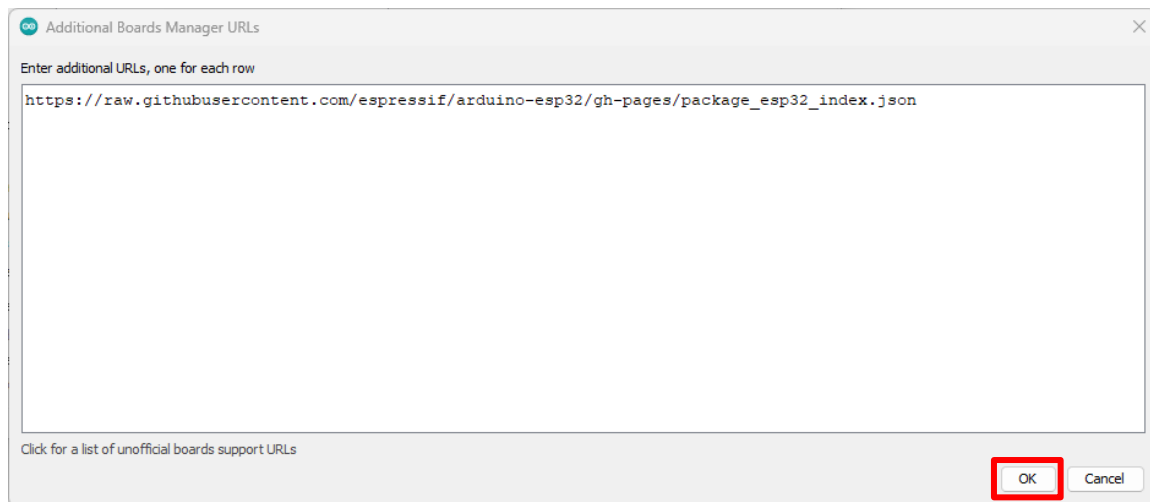- On Board 3.3V 700mA Voltage Regulator

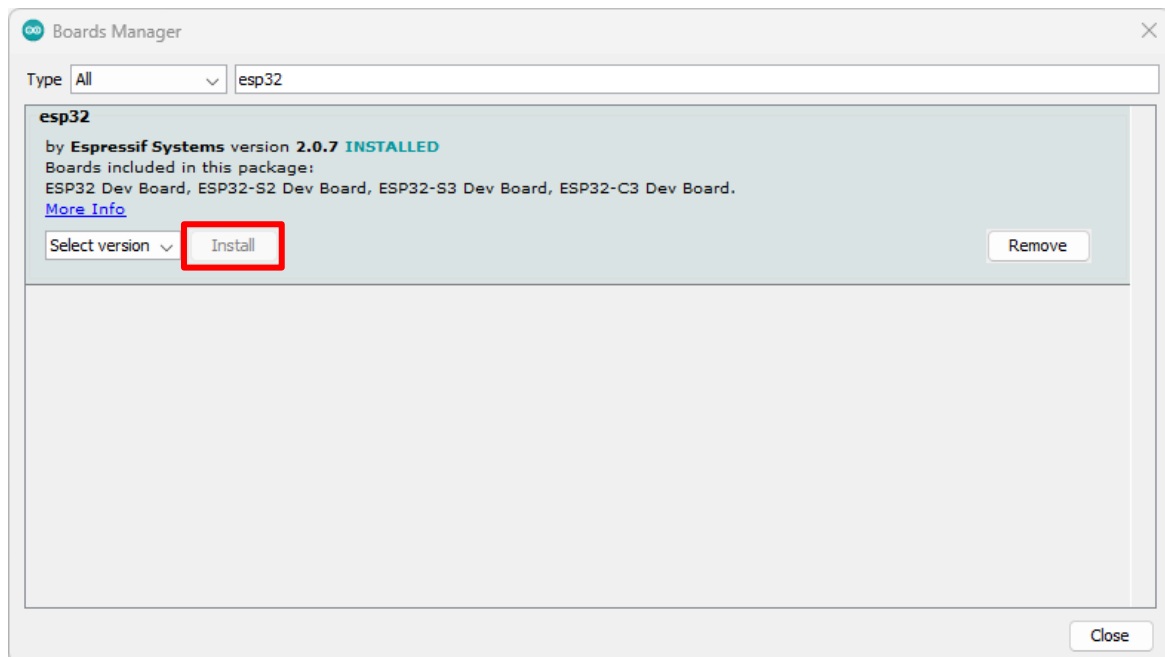## Setup Arduino IDE

Step 1: Open Arduino IDE

Step 2: File -> Preferences

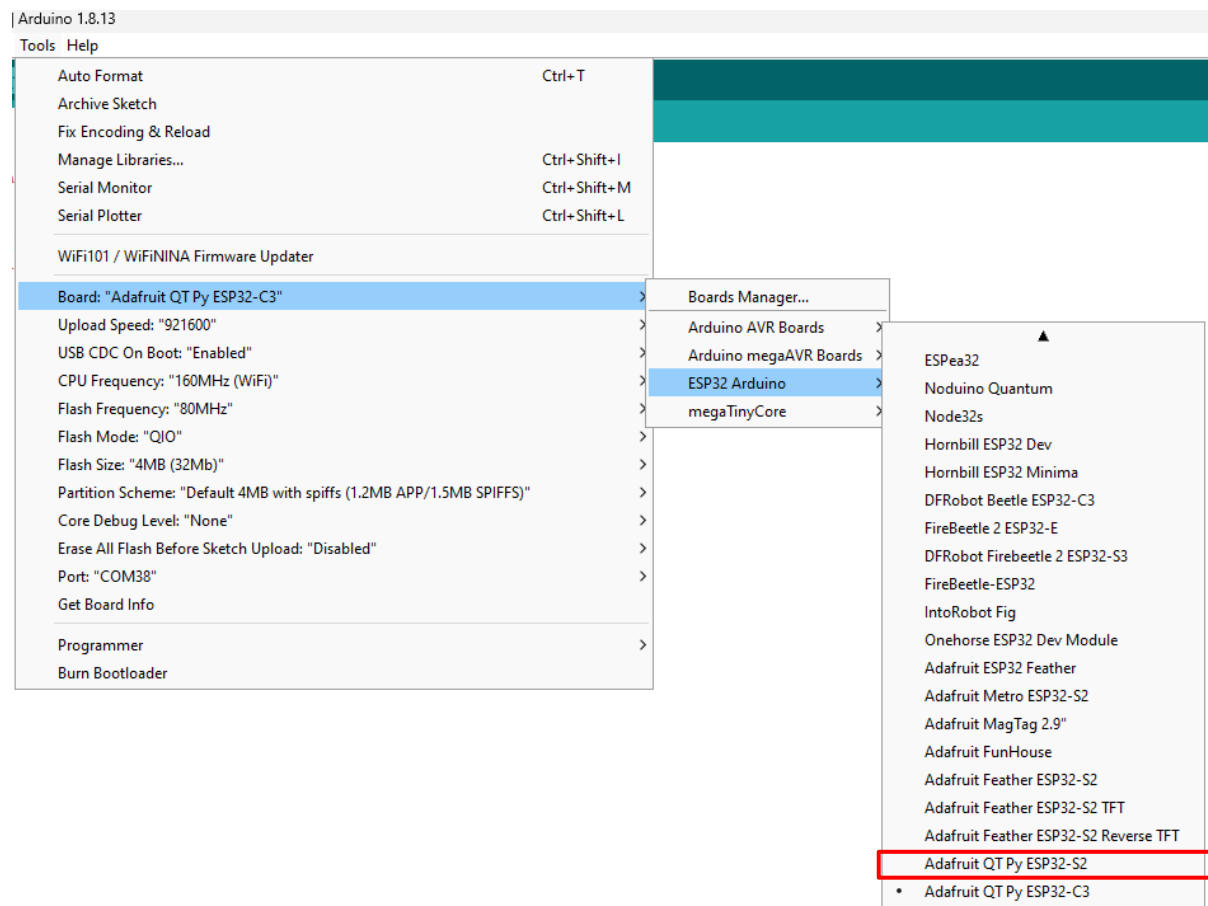**Step 3:** Add following link to the Board Manager-URLs and confirm with **OK.**

https://raw.githubusercontent.com/espressif/arduino-esp32/gh-pages/package_esp32_index.json

Step 4: Open the Board Manager and search for **esp32**. Then press Install.

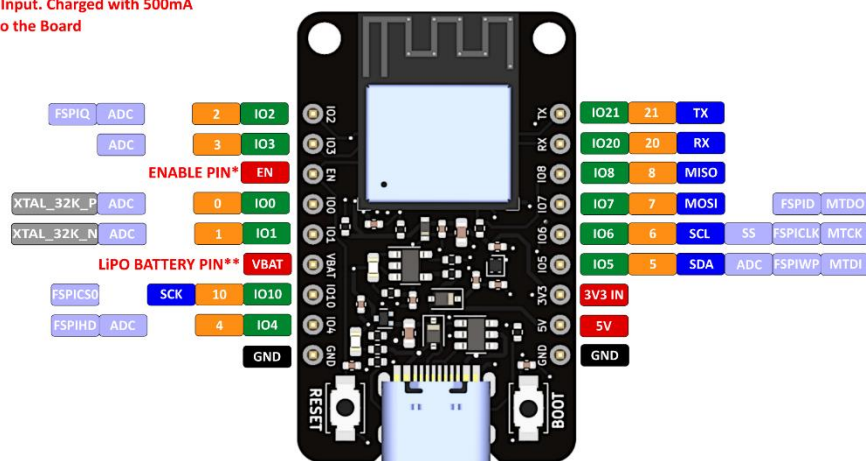**Step 5:** Choose Tools -> Board -> ESP32 Arduino -> Adafruit QT Py ESP32-C3.

ESP32-C3 Dev Board Pinout

POWER
GND
REFERENCE PIN
PROGRAMMING PIN
PRIMARY FUNCTION
SECONDARY FUNCTION
CLOCK

*Internal Pullup. Module off when input is low.
**4.2V LiPO Battery Input. Charged with 500mA
when 5V is applied to the Board

FSPIQ	ADC	2	IO2		IO2		TX	IO21	21	TX
	ADC	3	IO3		IO3		RX	IO20	20	RX
ENABLE PIN*	EN		EN		IO8		IO8	8	MISO
XTAL_32K_P	ADC	0	IO0		IO0		IO7	7	MOSI	FSPID	MTDO
XTAL_32K_N	ADC	1	IO1		IO1		IO6	6	SCL	SS	FSPICLK	MTCK
LiPO BATTERY PIN**	VBAT		VBAT	IO10		IO5	5	SDA	ADC	FSPIWP	MTDI
FSPICS0	SCK	10	IO10		3V3		3V3 IN
FSPIHD	ADC	4	IO4		5V		5V
		GND		GND		GND

ESP32-C3 Board Dimensions

22,9mm
18,45mm
38mm
2x Mountinghole
Size M2.5