

SparkFun ESP32 Thing Plus (USB-C) (WRL-20168)

xxx SparkFun DMX-Shield Connection

xxx ESCON 36/2 Connection (color = cable escon)

xxx Function

VSPIHD	SDA	GPIO21	SDA
VSPIWP	SCL	GPIO22	SCL
MTMS	Touch6	ADC2_CH6	GPIO14
	04		04
	Touch9	ADC1_CH4	GPIO32
		06	
MTDO	Touch3		GPIO15
	08		08
	Touch8	ADC1_CH5	GPIO33
	10		10
	Touch7	ADC2_CH7	GPIO27
	11		11
MTDI	Touch5	ADC2_CH5	GPIO12
	12		12
LED_BUILTIN	MTCK	Touch4	ADC2_CH4
		GPIO13	LED
	VUSB		VUSB
		3.3V Enable	EN
		VBAT	VBAT

JST
Connector
for LiPo Batt.
(Single-Cell)

Qwiic Connector
(Power enabled by GPIO00)



RGB LED (WS2812)	GPIO02	RGB_BUILTIN
DMX_EN	GPIO04	ADC
DMX_TX	GPIO17	TX1
DMX_RX	GPIO16	RX1
D1	D1	GPIO19
D0	D1	GPIO23
CLK	D2	GPIO18
D2	D1	GPIO35
		MOTOR_DIRECTION
		MOTOR_STEP
		MOTOR_ENABLE
		MOTOR_RUNNING
A4	GPIO36	ADC1_CH0
A3	GPIO39	ADC1_CH3
A2	GPIO34	ADC1_CH6
A1	GPIO25	ADC2_CH8
A0	GPIO26	ADC2_CH9
GND	GND	
NC		
3V3	3.3V	
RESET	Reset	

Status LED: Blue
Charge LED: Yellow
Power LED: Red

Boot Button: GPIO 0
Reset Button

Name	ADC
Power	DAC
GND	SPI
Control	UART
Arduino	Touch
GPIO	Misc

GPIO 3.3V tolerant only

INPUT Only pins!

Power

ESP32 VCC Range: 3.0V-3.6V
VBAT: Direct to battery (and charger)
VUSB: Direct to USB (5V)
3V3: Direct to 3.3V regulator (700mA)
ESP32-S2 Current Consumption:
· WiFi: 380mA (peak)
· Light-Sleep: 800µA
· Deep-Sleep: 10-150µA

Power Control

EN pin - Power for board
GPIO00 - Power to Qwiic Connector

ESP32-WROOM

Dual-Core Xtensa 32-bit LX7
Up to 240MHz
520KB SRAM
16MB SPI Flash

Multiplexed I/Os allow up to

13x 12-bit ADC Channels
3x SPI Interfaces
3x UART Interfaces
2x I2C Interfaces
2x I2S Interface
16x 20-bit PWM Channels
2x 8-bit DACs
8x Capacitive Touch Inputs

Wireless

WiFi: 802.11 b/g/n (up to 150Mbps)
WPA/WPA2/WPA2-Enterprise/SPS
Bluetooth: Bluetooth 4.2/BLE

Other*

Temp sensor (-40°C to 125°C)
Hall Sensor
SD/SDIO/MMC Host Controller
· µSD card slot CS: GPIO05 SS
CAN Bus

*On datasheet, but may not be supported yet