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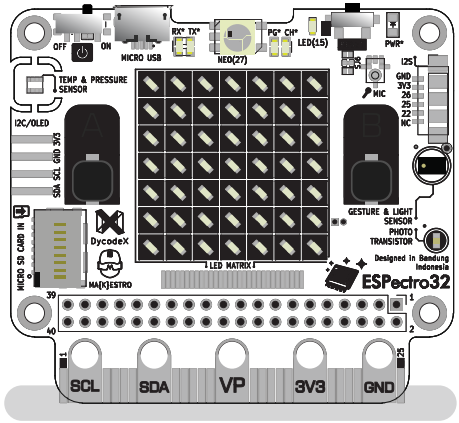
ESPectro32

Development Board



Please visit this link to view detailed information:
shop.makestro.com/product/espectro32/

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Overview

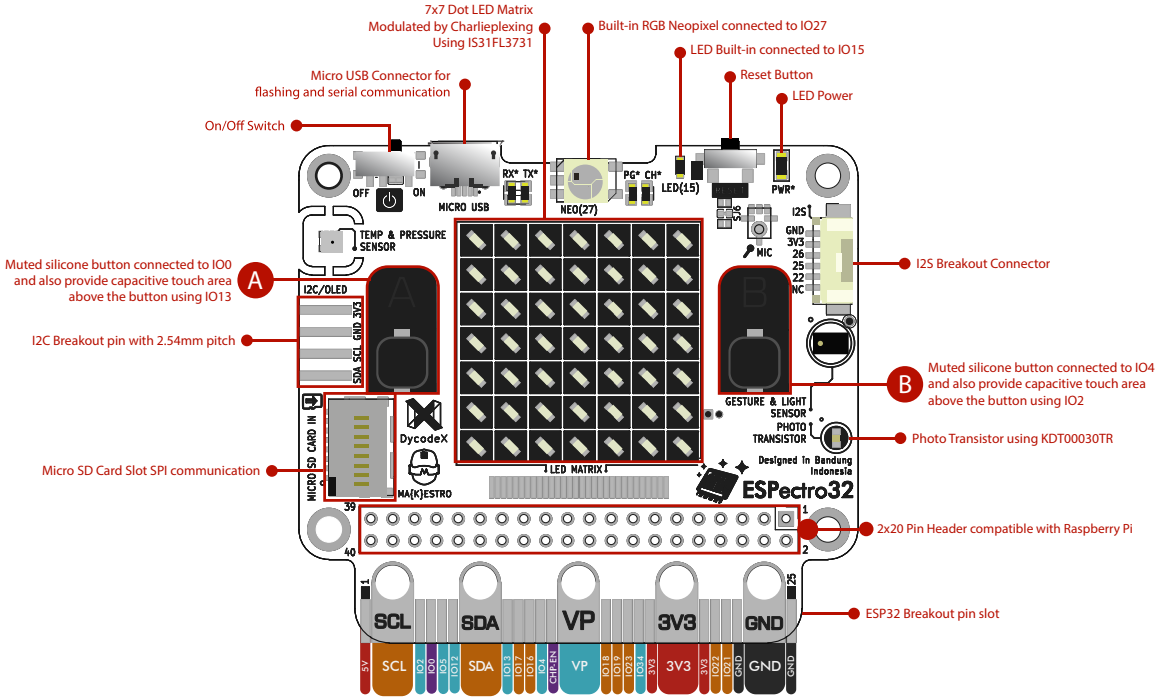
Don't let the size fool you—complete with a plethora of features, including a display and a bunch of sensors, you're gonna be surprised by what you can do with an ESPectro32, and then some! It supports external modules so you can extend it further.
Extensible and compatible, access all the ESP32 pins via Raspberry Pi-compatible breakout pins allowing you to extend it with various HAT boards. ESPectro32 also has unique edged pads breakout connected to all ESP32 pins; simply plug to the base board to extend ESPectro32's function. These unique pads also provide 5 alligator pins compatible for your experiment needs—no any soldering necessary. They are Microbit-based, so ESPectro32 is also Microbit-boards friendly.
With WiFi and Bluetooth support provided by ESP32, you can have ESPectro32 interact with other devices via the Internet. ESPectro32 has programmable 7x7 LED Matrix display and 2 buttons that can you can customize to many purposes to represent your wildest ideas!
ESPectro32 is designed to be easy to use by makers of all levels of expertise, but for those who love the hard way you can still tweak ESPectro32's hardware side easily. Just attach or simply connect using jumper cable to your external devices.
Now go ahead and start making great things with ESPectro32!

Introduction

Congratulations on getting your hands on ESPectro32!

ESPectro32 is a powerful and feature-packed development board based on the ESP32 microcontroller by Espressif Systems that allows you to unleash your maker powers and make incredible things!

Front



Header 2x20 ESP32 Breakout Pins

		3V3	1	2	5V	
I2C SDA	IO21		3	4	5V	
I2C SCL	IO22		5	6	GND	
ADC1 CH7	IO35		7	8	IO1	U0TXD
		GND	9	10	IO3	U0RXD
TOUCH7	IO27		11	12	IO26	DAC2
U2RXD	IO16		13	14	GND	
U2TXD	IO17		15	16	IO34	ADC1 CH6
		3V3	17	18	IO4	TOUCH0
SPI MOSI	IO23		19	20	GND	
SPI MISO	IO19		21	22	AUDIO_IN ISL	
SPI SCLK	IO18		23	24	IO33	ADC1 CH5 32K XN
		GND	25	26	IO5	
TOUCH1	IO0		27	28	IO39	ADC1 CH3 SEN VN
TOUCH6	IO14		29	30	GND	
TOUCH5	IO12		31	32	IO13	TOUCH4
		CHP-EN	33	34	GND	
DAC1	IO25		35	36	IO2	TOUCH2
TOUCH3	IO15		37	38	IO36	ADC CH0 SEN VP
		GND	39	40	IO32	ADC1 CH4 32K XP

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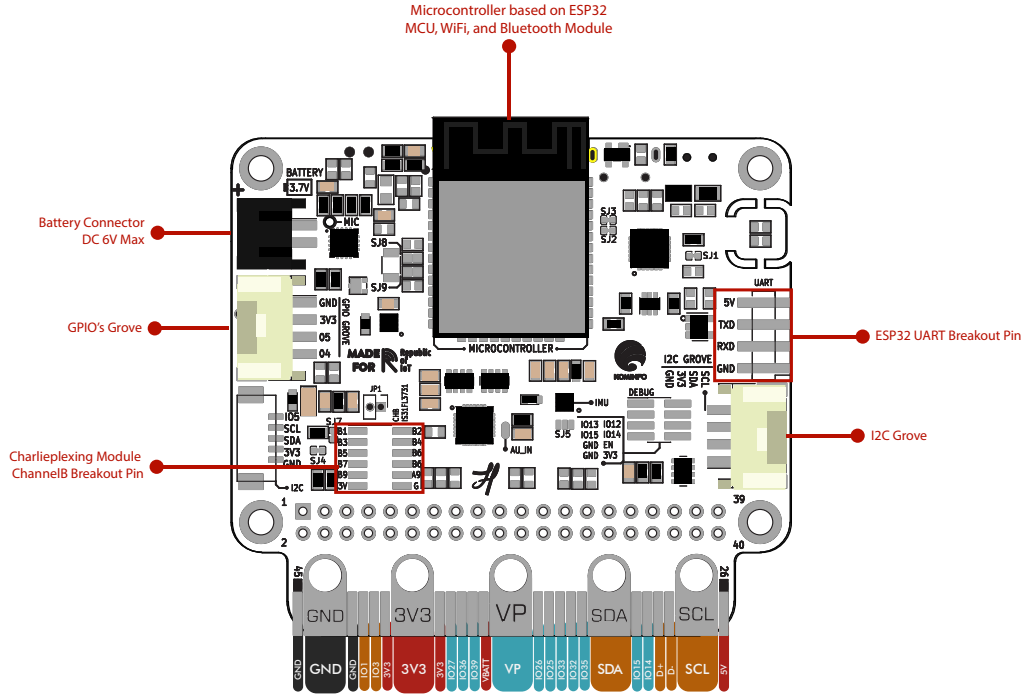
Back



Key Features

- ESP32 as Microcontroller
- Built-in USB to TTL using CP2104
- 2×20 Pin Header Breakout
- 45 Edge Pins Breakout
- LED matrix 7×7 controlled by charlieplexing method using IS31FL3731 via I2C
- Built-in Neopixel LED connected to IO27
- Buttons A/B connected to IO0 and IO4
- Capacitive touch area A/B connected to IO13 and IO2
- Micro SD card slot via SPI, chip select connected to IO33
- Power: LiPo battery via JST connector, or 5V~6V via Micro USB connector
- Built-in Photo Transistor connected to IO36
- I2C and GPIO grove connector
- Compatible I2C 2.54mm pin header for extended OLED

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