OpenAstroTracker Electronics Configuration

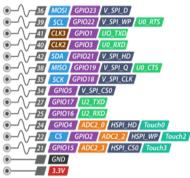**Configuration is:**
ESP32
28BYJ48 steppers for DEC & RA
SSD1306 display with mini joystick for input
MPU6050 gyro
(GPS module)

Notes	Connect to	Function	Signal
Pulled up to 3V3	n/c	Control	EN
Input only	Joystick X/Keypad Row 3	Analog	ADC1_0
Input only	Joystick Y/Keypad Row 1	Analog	ADC1_3
Input only	Joystick push/Keypad Row 2	Analog	ADC1_6
Input only			
	DEC Motor 4	Output	GPIO32
	DEC Motor 3	Output	GPIO33
No analog with WiFi	DEC Motor 2	Output	GPIO25
No analog with WiFi	DEC Motor 1	Output	GPIO26
No analog with WiFi	RA Motor 4	Output	GPIO27
No analog with WiFi	RA Motor 3	Output	GPIO14
No analog with WiFi	RA Motor 2	Output	GPIO12
No analog with WiFi	RA Motor 1	Output	GPIO13
	GND	Power	GND
Diode connects USB Vcc to Vin	5V	Power	Vin

Signal	Function	Connect to	Notes
SCL	I2C	Gyro/Display SCL	
	UART0	n/c	Used for USB
	UART1	n/c	Used for USB
SDA	I2C	Gyro/Display SDA	
U2_TXD	UART2	GPS RxD	
U2_RXD	UART2	GPS TxD	
			No analog with WiFi
			No analog with WiFi
			No analog with WiFi
GND	Power	Gyro/GPS/Joy/Display GND	
3V3	Power	Gyro/GPS/Joy/Display Vcc	Regulated 3V3

Power | Control | Arduino | ADC | SPI | EN
GND | Touch | GPIO | DAC | UART | PWM

ESP32 Dev. Board Pinout

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