

# Atom JoyStick

SKU:K137



## Description

**M5Atom Joystick** is a versatile programmable dual-joystick remote controller featuring the AtomS3 as the main controller, with an STM32 handling co-processing functions. It is equipped with two 5-way joysticks with hall sensors, two function buttons, and built-in RGB LEDs for human-machine interaction and status indication. The device includes two high-voltage battery charging circuits. It comes pre-loaded with the Stamp Fly control firmware and communicates with Stamp Fly via the ESP-NOW protocol. The firmware source code is open-source. This product is suitable for drone control, robot control, smart cars, and various DIY projects.

### Instructions for Use

#### 1. Pairing

- Long press the middle button on the AtomS3 to power on, then press again as prompted on the screen to enter pairing mode.
- Press the reset button on the Stamp Fly to send a pairing broadcast.

- Wait for pairing to complete.

## 2. Operation

**Takeoff and Landing:** Single-click the middle button on the AtomS3 to control takeoff or landing.

**Control Mode:** Press the left front button on the Atom Joystick to switch modes.

- Stable Mode: Provides stable control interaction, suitable for routine flying and cruising.
- Sport Mode: Offers maximum control freedom, capable of performing complex maneuvers, requiring high operating skills.

**Altitude Mode:** Press the right front button on the Atom Joystick to switch altitude modes.

- Auto Altitude: Keeps altitude stable at a set value; pushing the left joystick up or down changes the set altitude.
- Manual Altitude: Full throttle control of altitude, requiring high operating skills.

### **Aerial Stunts:**

- Flip: During flight, pressing the center button of the right joystick on the Atom Joystick performs a flip maneuver.

## Product Features

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- STM32F030F4P6
- Equipped with M5AtomS3
- Compatible with Atom Lite, Atom Matrix, AtomS3 Lite, AtomS3
- Dual joysticks, dual buttons, toggle switch
- WS2812 RGB LEDs
- Dual high-voltage lithium battery charging circuits
- Battery detection

## Includes

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- 1x Atom Joystick
- 1x 300mAh high-voltage lithium battery

## Applications

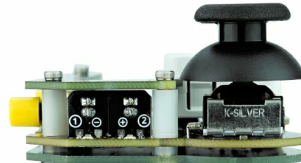
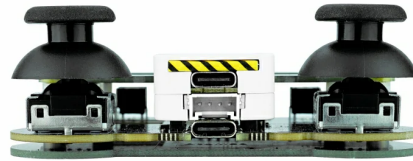
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- Drone control
- Robot control
- Smart cars
- DIY projects

## Specifications

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Specification	Parameter
MCU	STM32F030F4P6
RGB	WS2812C
Charging IC	TP4067@4.35V
Battery	300mAh
Charging Current	500mA
Buzzer	Built-in Buzzer@5020
Product Size	84*60*30mm
Packaging Size	162*99*36mm
Product Weight	63.5g
Packaging Weight	96.7g



## EasyLoader

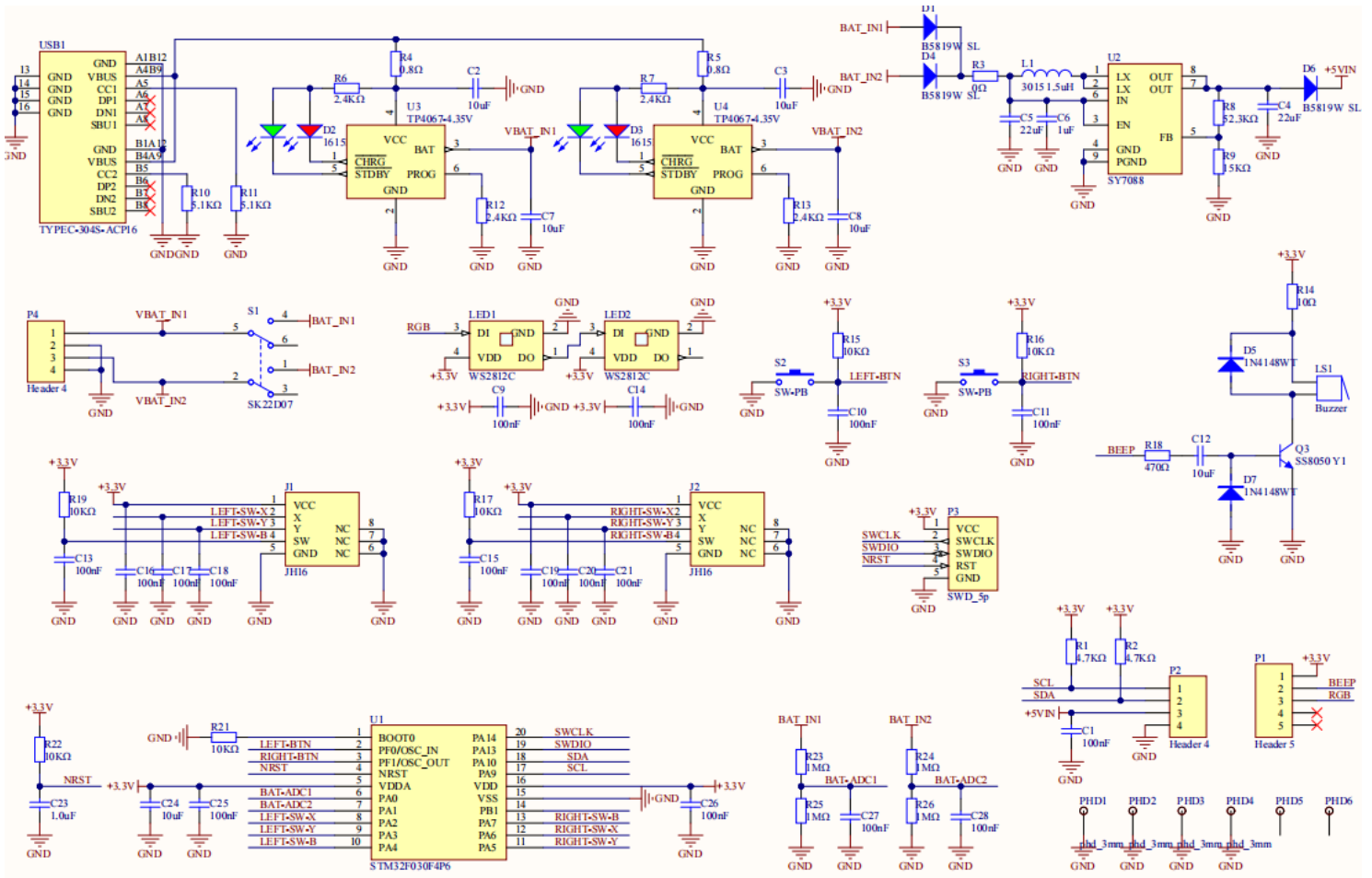
EasyLoader is a simple and fast program burner that comes with a product-related example program. By following a few easy steps, you can burn the program to the main controller and perform a series of functional verifications.

[Download Windows Version EasyLoader](#)

# Related Links

- TP4067 (Battery Charge Chip)

# Schematic Diagram



[Download Full Schematic Diagram](#)

# PinMap

## Buzzer and RGB LEDs

Atom JoyStick (AtomS3)	G5	G6
BEEP	BEEP	
WS2812C		RGB

## Joysticks

STM32F030F4P6	PA1	PA2	PA3	PA6	PA5	PA7
JoyStick_LEFT	LEFT-SW-X	LEFT-SW-Y	LEFT-SW-B			
JoyStick_RIGHT				RIGHT-SW-X	RIGHT-SW-Y	RIGHT-SW-B

## Buttons and Battery Detection

STM32F030F4P6	PF0	PF1	PA0	PA1
Button_LEFT	LEFT-BTN			
Button_RIGHT		RIGHT-BTN		
BAT1-Detect			BAT-ADC1	
BAT2-Detect				BAT-ADC2

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