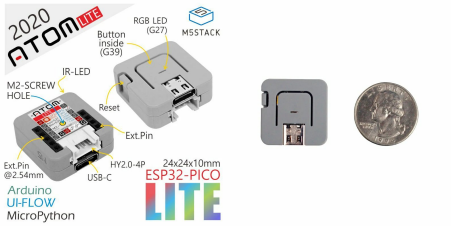
ATOM Lite

SKU:C008



Tutorial

UIFlow

This tutorial will show you how to control ATOM devices through the UIFlow graphical programming platform

Arduino IDE

This tutorial will show you how to program and control ATOM devices through Arduino IDE

Micropython

This tutorial will show you how to control ATOM devices through Micropython programming

Description

Atom Lite, which has a size of **only 24*24mm** , is a very compact development board in the M5Stack development kit series. It provides more GPIOs for user customization which is very suitable for embedded smart home devices and in making smart toys. The main control adopts the **ESP32** chip which comes integrated with **Wi-Fi** technologies and has a **4MB** of integrated SPI flash memory. Atom Lite board provides an Infra-Red LED, a RGB LED, buttons, and a HY2.0 interface. In addition, it can connect to external sensors and actuators through 6 GPIOs. The on-board Type-C USB interface enables rapid program upload and execution.

Product Features

- ESP32-based
- RGB LED(SK6812)
- Programmable button
- Built-in Infra-red
- Extendable Pins & Holes
- Program Platform: Arduino 、 UIFlow

Include

- 1x ATOM Lite

Applications

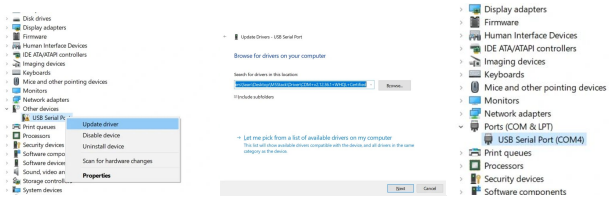
- Internet of things terminal controller
- IoT node
- Wearable peripherals

Specification

Resources	Parameter
ESP32	240MHz dual core, 600 DMIPS, 520KB SRAM, Wi-Fi
Flash	4MB
Power Input	5V @ 500mA
Port	TypeC x 1, GROVE(I2C+I/O+UART) x 1
PIN Port	G19, G21,G22,G23,G25, G33
RGB LED	SK6812 3535 x 1
IR	Infrared transmission
Button	Custom button x 1
Antenna	2.4G 3D Antenna
Operating Temperature	0°C to 40°C
Net weight	3g
Gross weight	12g
Product Size	24*24*10mm
Package Size	43*43*13mm
Case Material	Plastic (PC)

Driver Installation

Connect the device to the PC, open the device manager to install FTDI driver for the device. Take the win10 environment as an example, download the driver file that matches the operating system, unzip it, and install it through the device manager. (Note: In some system environments, the driver needs to be installed twice for the driver to take effect. The unrecognized device name is usually `M5Stack` or `USB Serial` . Windows recommends using the driver file to install directly in the device manager (custom Update), the executable file installation method may not work properly). Click here to download FTDI driver



EasyLoader

EasyLoader is a concise and fast program writer, which has a built-in case program related to the product. It can be burned to the main control by simple steps to perform a series of function verification.

Download Windows Version Easyloader

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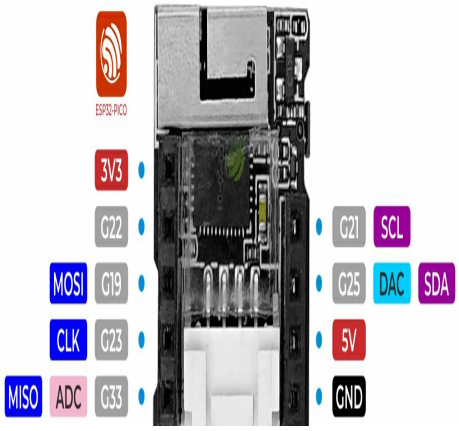
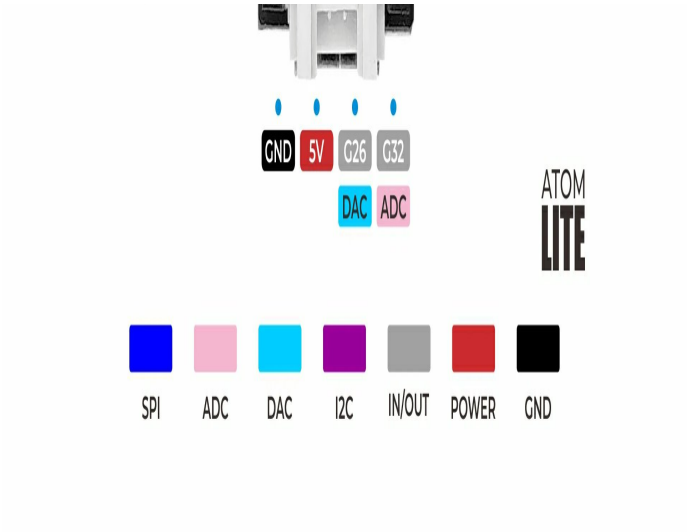
Description:
Through the color-changing breathing light program, test whether the RGB LED and buttons are working properly.

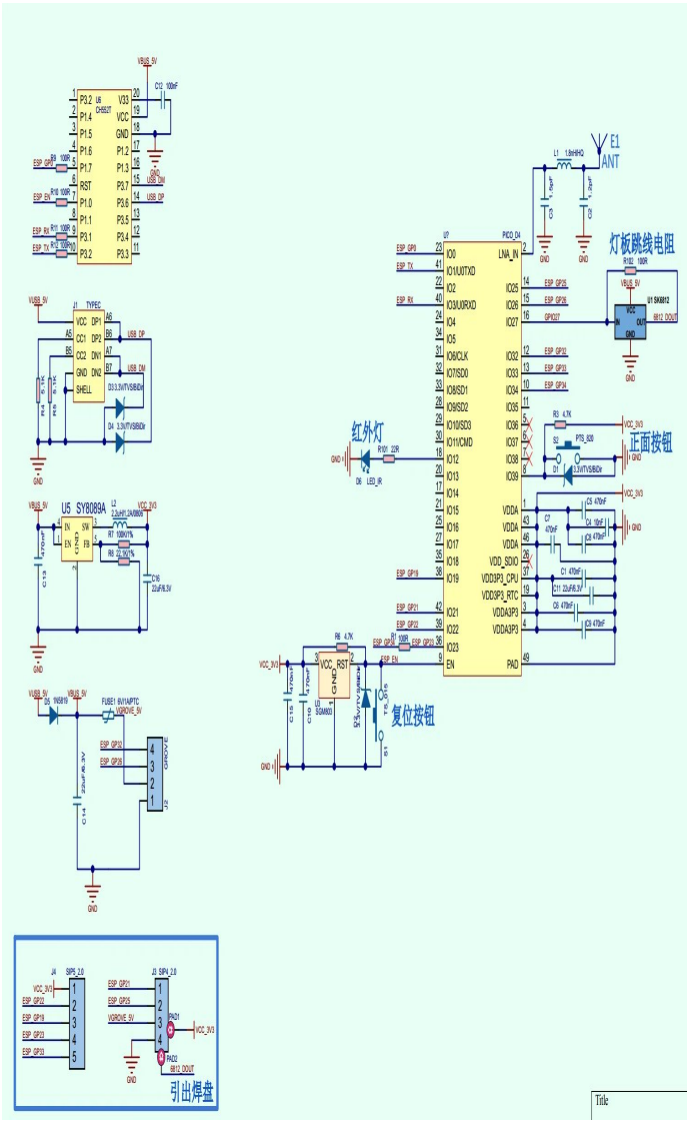
Peripherals Pin Map

Peripherals	Pin
RGB Led	G27
Btn	G39
IR	G12
SCL	G21
SDA	G25





Schematic



Related Link

- **Datasheet**
  - ESP32-PICO

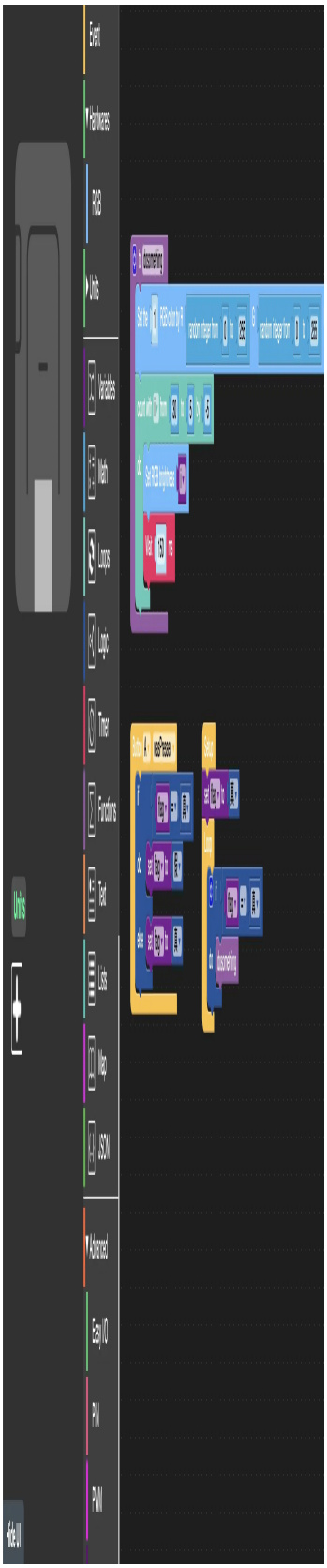
Example

Arduino IDE

- To get the code, please click here
- Before compiling the program, please configure the development board as M5StickC

UIFlow

- Click here to view UIFlow example



Video

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Learn

Running Faucet Alarm

Detect running faucet using low powered i. MXRT1010 development board and Edge Impulse Studio.

Night Lamp with Atom Lite, Neopixel Strip and IR Remote

This project replaced my daughter's old, broken night lamp. Its main components are: Atom Lite ESP32, neopixel strip, IR unit.

Alarm Device controlled by BT or Wi-Fi - Part 1

Part 1 (this project): M5Stack Atom Lite (ESP32 Pico) that can be controlled by BLE or Wi-Fi. Part 2: Android app to control the ESP32.

ATOM Wall Clock

Wall clock shows time on two concentric NeoPixel LED rings. The inner ring shows the hours, the outer ring shows minutes and seconds

Using The Things Network with ATOM Lite and LoRaWAN Unit

Learn how to send messages to The Things Network with MicroPython. You will need a The Things Network Gateway near you.

Alexa enabled device with Atom Lite

Atom Lite control device with Alexa. In my house, Amazon echo is located in every room, and the lighting of living room is controlled by Alex

M5Stack Christmas 3D POV Display

I made a mini 3D POV Display to enhance the Christmas spirit.

PUSH6060 ATOM RS485 Test

Pilot a Push6060 with ATOM and Tail485 with UIFLOW

Alexa + Atom or Atom + SwitBot control Air Conditioner

Thanks @coppercele, Make infrared remote control with M5Stack, get temperature of Swichbot thermo-hygrometer and control AC automatically

M5Stack Christmas M5 Tree

This year's Christmas, I decorated the tree with M5Stack devices.

M5Stack Christmas Rainbow LED Strip

An example to use LED strip with M5 Atom Lite

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