ACES Kit

OpenSource
MicroPYTHON
Arduino
ESP32
NDS

FACES
PocketComputer

POGOPIN
Grove(I2C)

Magnet

Magnet
Inside

600mAh
Battery

Bus/GPIO
Extend
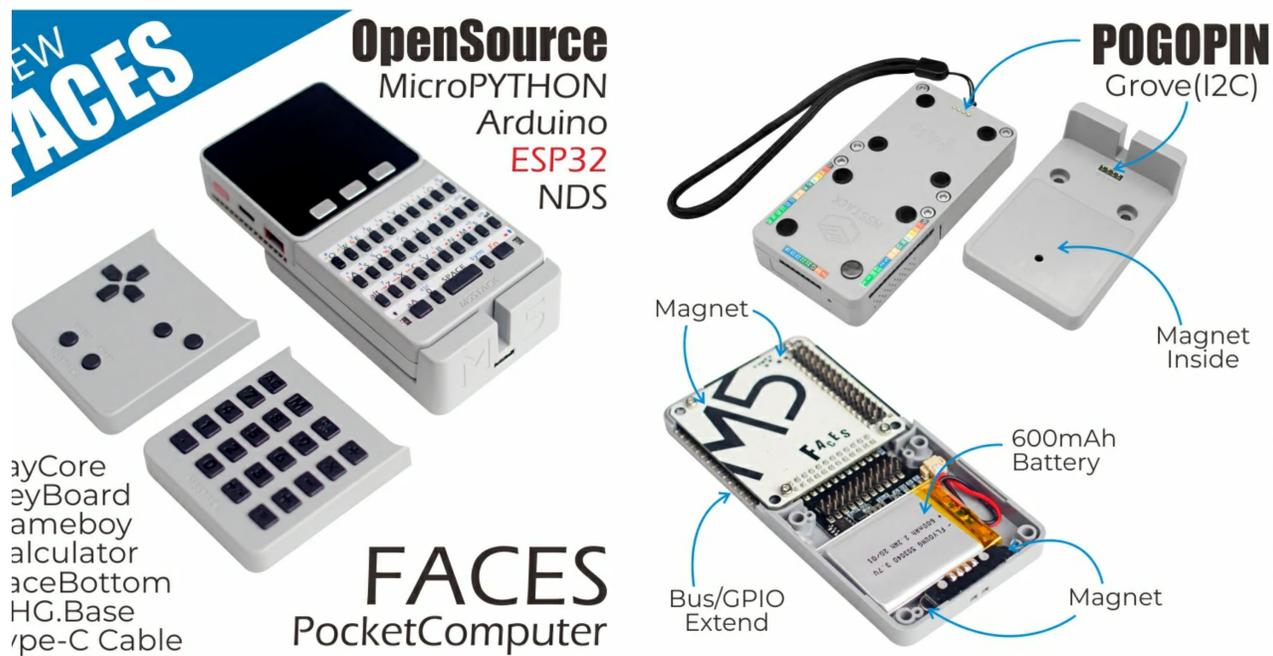
Magnet

ayCore
eyBoard
ameboy
alculator
aceBottom
HG.Base
ype-C Cable

utorial&Quick-Start

ose the development platform you want to use, view the corresponding tutorial&quick-Start.

Flow   Arduino

Description

ES Kit is a series of functional panels integration containing three most commonly used panels integration containing three most commonly used

ls 'GameBoy','Calculator' and 'QWERTY'. With **MEGA328** processor built inside, it works under slave mode through I2C communication protocol. W

e 3 different panels, it will be very easy to support keyboard interaction with your M5Core.

> **Power on/off**:
> **Power on: click the red power button on the left**
> **Power off: Quickly double-click the red power button on the left**
> Note: By default, when USB is powered, it cannot be shut down**

roduct Features

SP32-based

uilt in 6-axis IMU

peaker, 3 Buttons, LCD

F card slot (16G Maximum size)

attery Socket & Lipo Battery

Replaceable multifunction panel

xtendable Pins & Holes

M-Bus Socket & Pins

Development Platform UIFlow, MicroPython, Arduino

Include

x GRAY
x FACES Charger table
x FACES sling
x panel sticker
x FACES Keyboard(GameBoy, Calculator, QWERTY)
0x Femal-male dupont
x M3x12 screw
x hexagon screw key
x Type-C USB(100cm)

Applications

Gameboy
Calculator
nput peripherals
nternet of things terminal controller
DIY creation

Specification

Resources	Parameter
ESP32	240MHz dual core, 600 DMIPS, 520KB SRAM, Wi-Fi, dual mode Bluetooth
Flash Memory	16MB
Power Input	5V @ 500mA
Port	TypeC x 1, GROVE(I2C+I/0+UART) x 1
IPS Screen	2 inch, 320x240 Colorful TFT LCD, ILI9342C, max brightness 853nit
Speaker	1W-0928
Button	Custom button x 1
Core bottom port	PIN (G1,G2,G3,G16, G17, G18, G19, G21, G22, G23, G25, G26, G35, G36)
MEMS	BMM150 + MPU6886
Battery	600 mAh @ 3.7V
Antenna	2.4G 3D Antenna
Operating Temperature	0°C to 60°C
Net weight	94g
Gross weight	264g
Product Size	58.2mm x 54.2mm x 18.7mm
Package Size	120mm x 85mm x 65mm

| | Case Material | | Plastic (PC) | | | | |

string values

Key	AC	M	%	÷	0-9	X	-
Val	A	M	%	/	0-9	*	-

SP32 Chip	GPIO23	GPIO19	GPIO18	GPIO14	GPIO27	GPIO33	GPIO32
ILI9342C	MOSI/MISO	/	CLK	CS	DC	RST	BL
TF Card	MOSI	MISO	CLK				

nt Values (Int values are the ASCII value of each key)

Key	AC	M	%	÷	0-9	X	-
Val	65	77	37	47	48-57	42	45

asyLoader

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.
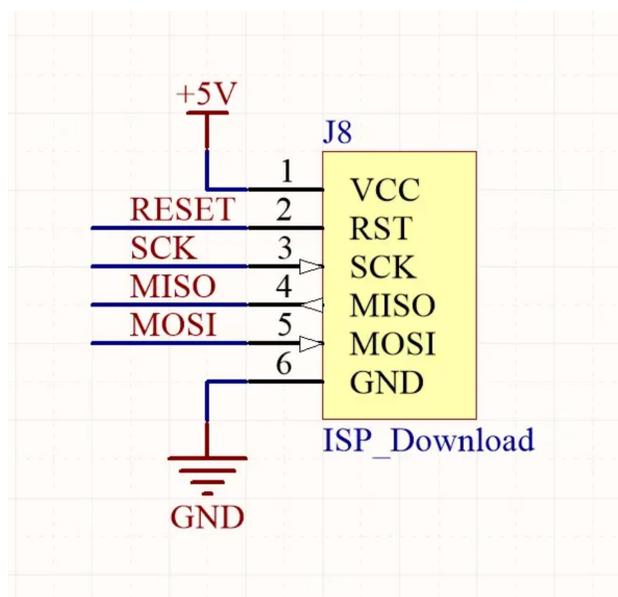
wnload Windows Version Easyloader   Download MacOS Version Easyloader

> **Description:**
> This case will run the FACES keyboard input test program by default. Restart the selected program list to switch between different panel test items.

inMap

a328 ISP Download interface Pin foot definition

06 charging/discharging,Voltage parameter

charging	discharging
0.00 ~ 3.40V -> 0%	4.20 ~ 4.07V -> 100%
3.40 ~ 3.61V -> 25%	4.07 ~ 3.81V -> 75%
3.61 ~ 3.88V -> 50%	3.81 ~ 3.55V -> 50%
3.88 ~ 4.12V -> 75%	3.55 ~ 3.33V -> 25%
4.12 ~ / -> 100%	3.33 ~ 0.00V -> 0%

M5PORT EXPLAIN

PORT	PIN	Note:
PORT-A(Red)	G21/22	I2C
PORT-B(Black)	G26/36	DAC/ADC
PORT-C(Blue)	G16/17	UART

ESP32 ADC/DAC

ADC1	ADC2	DAC1	DAC2
8 channels	10 channels	2 channels	2 channels
G32-39	G0/2/4/12-15/25-27	G25	G26

M-BUS

more information about Pin assignment and Pin Remapping, Please refer to ESP32 Datasheet
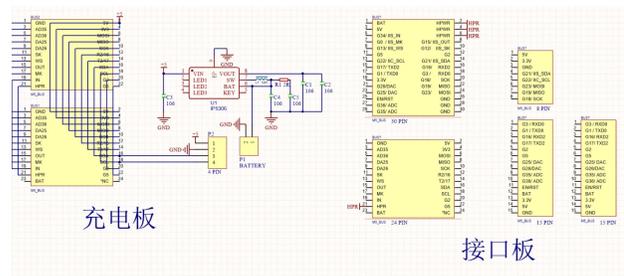
Related Link

Datasheet

- ESP32
- MPU6886

chematic

chematic

:tom

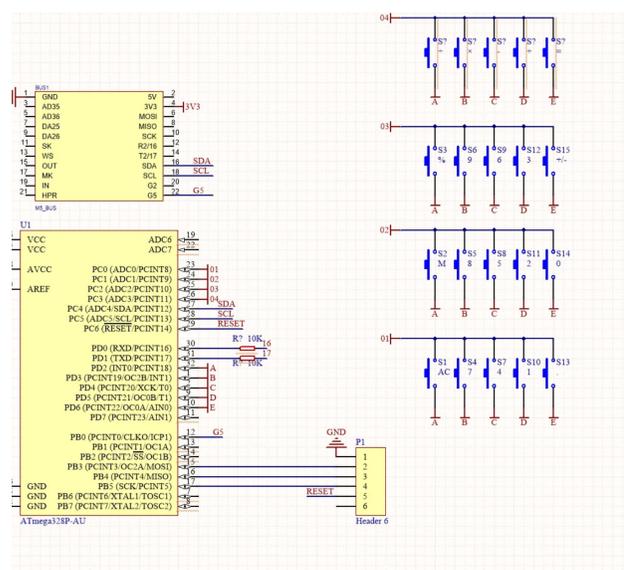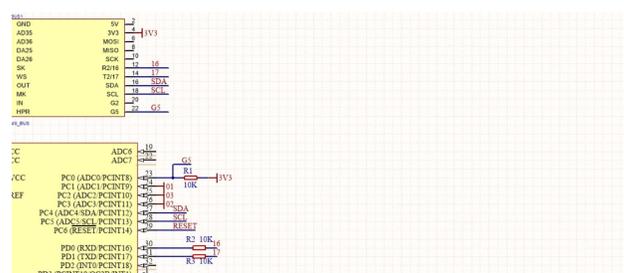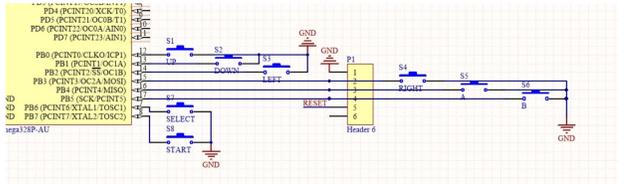充电板　　　　　　　接口板
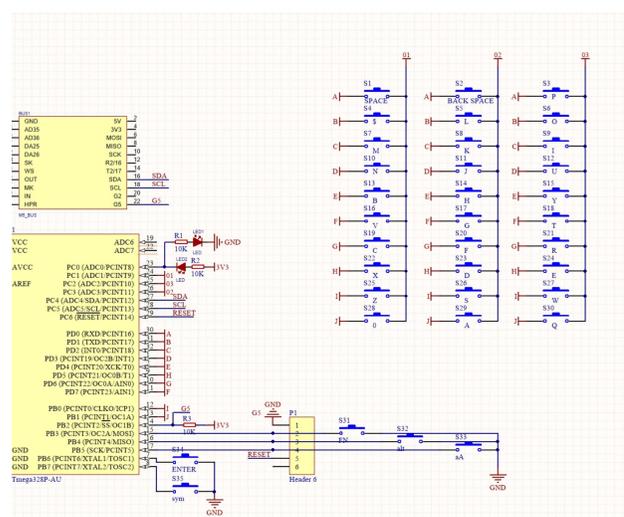
rboard

culator

neboy

earn

M5Stack x Raspberry Pi Pocket Computer

M5Stack user Yama-chan combined a Raspberry Pi Zero with the Faces Keyboard kit to make an awesome lin pocket computer.

xample

Click here to download Arduino code

meBoy Keyboard

u are up for some classic video games, GameBoy panel plus M5Core is the perfect combination. All you need to do is to upload an emulator onto th tack and attach the GameBoy panel underneath. This is how it will be like:

ESPTool to burn game tutorial: https://docs.m5stack.com/#/en/quick_start/faces/gameboy_burn_a_nes_game

ck here to download the testing game program

other panels are Calculator, Keyboard, Encoder, Joystick, Fingerprint, RFID and QWERTY Keyboard. You can apply them to those situations which are of inputting information and hard to control.

educe the difficulty of disassembly when removing the replacement panel, it is recommended to remove the M5Core and then disassemble the pan

ersion Change

Release Date	Product Change
2017.12	Initial public release
2019.6	MPU9250 changed to MPU6886+BMM150
2019.7	TN screen changed to IPS screen