Timer Camera F

Tutorial&Quick-Start

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

Camera-Tool UIFlow Arduino

Description

The **Timer Camera F** is a fisheye camera module based on ESP32-D0WDQ6-V3 with 8M PSRAM and 4M Flash on board. 3.0 megapixel camera (OV3660) with DFOV 120° and a maximum resolution of 2048x1536 photos can be captured. The camera features an ultra-low-power design, and the internal integrated RTC (BM8563) draws out the IRQ signal, which can be used for sleep and timer wake-up (sleep current down to 2μA). The built-in 270mAh battery provides more than one month of battery life with timed pictures (one per hour) enabled. The module supports WiFi image transfer and USB port debugging, and the HY2.0-4P output on the bottom can be used to expand other peripherals. The on-board LED status indicator and reset button facilitate program development and debugging. In terms of application, M5Stack provides a number of simple and efficient application development methods and interfaces for the TimerCAM series, making it easy for users to use and develop their applications. (including PC/Mobile photo shooting APP, cloud image HTTP interface for timer shooting, cloud AI recognition interface (not online yet), etc.)

> The low-power power management solution adopted by the Timer Camera series is different from the CORE and StickC devices. When in use, the PWR button is used as a power-on button(long press 2s). If you need to shut down the device, you need to use the software API or press the Reset button on the PCB.

Product Features

Design based on esp32
WiFi image transmission
Timed sleep wake up
Status indicator
Ultra low power design
Built-in 270mAh battery
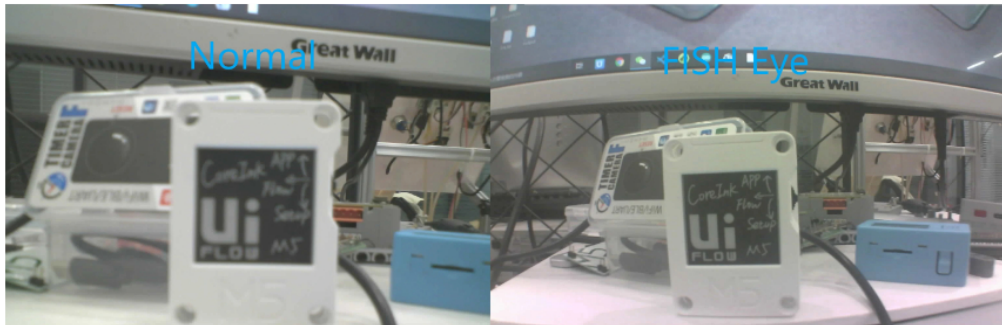Programming platform：ESP-IDF/Arduino/UIFlow

Includes

1x Timer Camera F
1x LEGO Adapter
1x Wall-1515
1x Type-C USB(20cm)

Applications

Take pictures regularly

Remote video monitoring

FISH EYE LENS Comparison Normal LENS

Specification

Resources	Parameter
PSRAM	8MB
Flash	4M
Battery	270mAh
Image Sensor	OV3660
Maximum resolution	300w pixels
Output format	8-/10-Bit RAW, RGB and YCbCr output, compression.
Maximum image transmission rate (OV3660)	2048x1536: 15fps / 1080p: 20fps / 720p: 45fps / XGA(1024x768) : 45fps / VGA(640x480) : 60fps / QVGA(320x240) : 120fps
DFOV	120°
Net weight	21g
Gross weight	44g
Product Size	48*24*22.6mm
Package Size	75*45*30mm

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.

PinMap

Camera Interface PinMap

Interface	Camera Pin	TimerCamera
SCCB Clock	SIOC	IO23
SCCB Data	SIOD	IO25
System Clock	XCLK	IO27
Vertical Sync	VSYNC	IO22
Horizontal Reference	HREF	IO26
Pixel Clock	PCLK	IO21

Pixel Data Bit 0	D0	IO32
Pixel Data Bit 1	D1	IO35
Pixel Data Bit 2	D2	IO34
Pixel Data Bit 3	D3	IO5
Pixel Data Bit 4	D4	IO39
Pixel Data Bit 5	D5	IO18
Pixel Data Bit 6	D6	IO36
Pixel Data Bit 7	D7	IO19
Camera Reset	RESET	IO15
Camera Power Down	PWDN	-1
Power Supply 3.3V	3V3	3V3
Ground	GND	GND

GROVE Interface

Grove	TimerCamera
SCL	IO13
SDA	IO4
5V	5V
GND	GND

LED Interface

LED	TimerCamera
LED_Pin	IO2

BAT Interface

BAT	TimerCamera
BAT_ADC_Pin	IO38
BAT_HOLD_Pin	IO33

Related Link

datasheet

ESP32

OV3660

Schematic

TimerCAM_A1-ESP32_SUBSYS

TimerCAM_A2-PMS_UART

Example

Arduino

TimerCamera X-Arduino

Source code

TimerCamera X

Firmware

You can download and burn firmware with M5Burner

Tutorial

Use Camera-Tool to take pictures

Use HTTP Cloud Image Interface Service-UIFlow to get pictures

Use Arduino development

Video

Last updated: 2020-12-14

PURCHASE