



THE DATASHEET OF U082-F



Timer Camera F

SKU:U082-F



Tutorial&Quick-Start

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

[Camera-Tool](#)

[UIFlow](#)

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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 2 μ A). 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

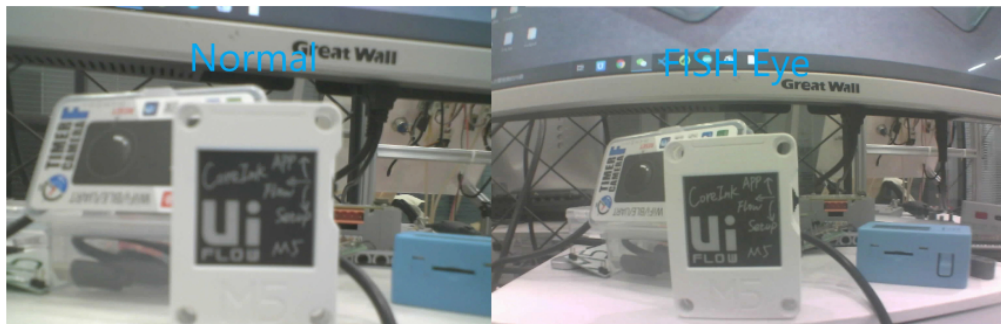
Includes

- 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 [MSBurner](#)

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

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