

5.0inch_Squareline_Demo

Download Introduction

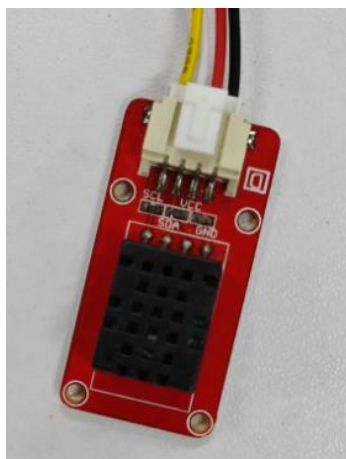
1. Operation before downloading cases

(1) Place all the lib library files provided in the folder into the libraries file of the arduino.

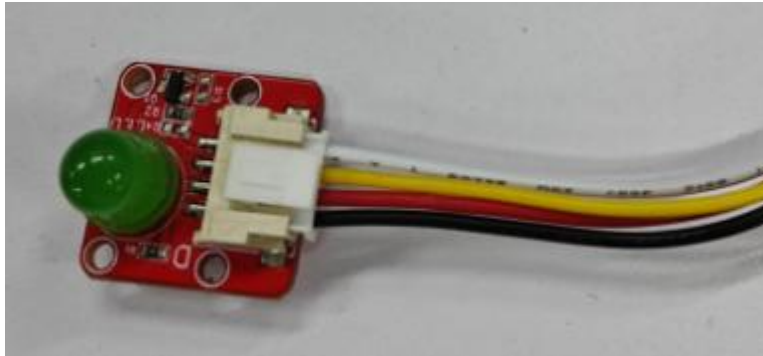
~~测试 > esp32_homeassistant_hmi > lib				
名称	修改日期	类型	大小	
Adafruit_Sensor-master	1/17/2024 4:34 PM	文件夹		
Arduino_GFX	1/18/2024 11:16 AM	文件夹		
async-mqtt-client-develop	1/8/2024 4:20 PM	文件夹		
AsyncTCP-master	1/8/2024 4:20 PM	文件夹		
Crowbits_DHT20	1/18/2024 11:14 AM	文件夹		
DHT-sensor-library-master	1/17/2024 4:29 PM	文件夹		
FT6236	1/18/2024 11:32 AM	文件夹		
gt911-arduino	1/18/2024 11:32 AM	文件夹		
LovyanGFX	1/18/2024 11:13 AM	文件夹		
lvgl	1/18/2024 11:33 AM	文件夹		
TFT_eSPI	1/18/2024 11:13 AM	文件夹		
U8g2	1/18/2024 11:33 AM	文件夹		
UI	1/18/2024 11:33 AM	文件夹		
XPT2046_Touchscreen	1/18/2024 11:33 AM	文件夹		
lv_conf.h	8/3/2023 9:55 AM	C/C++ Header	26 KB	

Sensor wiring:

(1) Temperature and humidity sensor (Crowtail-DHT20-V1.0) with IIC interface



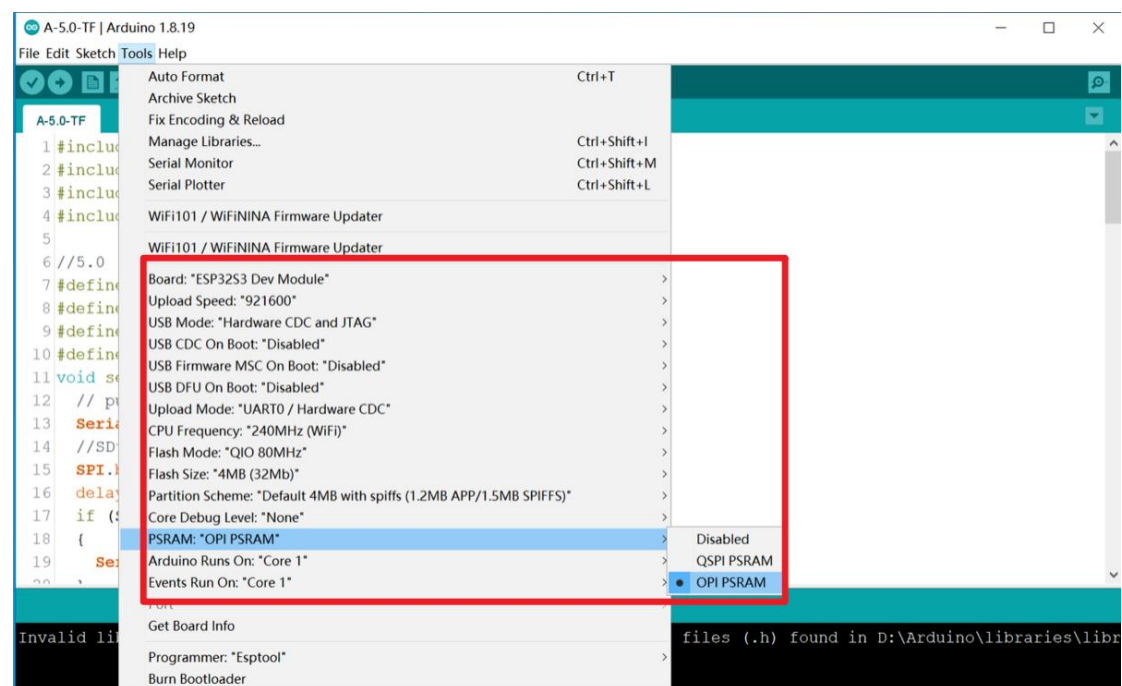
(2) LED to IO38 port



2. Use arduino software to open 5.0inch_Squareline_Demo.ino, arduino related operations can refer to this screen wiki

(https://www.elecrow.com/wiki/index.php?title=ESP32_Display_5.0%27%27_Intelligent_Touch_Screen_Wi-Fi%26BLE_800*480_HMI_Display)

Download Settings:



3. Download the programme.

4. Operational effects.



5. Explanation of key points with MQTT

(1) WiFi and server address settings, the network needs to be in the same LAN, the server address and port that is the address and port automatically generated by Raspberry Pi.

```
File Edit Sketch Tools Help
5.0-inch_Squareline_Demo touch.h ui.c ui.h ui_events.h ui_helpers.c ui_helpers.h ui_img_elecrow_logo_png.c ui_h
7 }
8 #include <AsyncMqttClient.h>
9 #include <Crowbits_DHT20.h>
10
11 #define WIFI_SSID "yanfa_software"
12 #define WIFI_PASSWORD "yanfa-123456"
13
14 // Raspberry Pi Mosquitto MQTT Broker
15 #define MQTT_HOST IPAddress(192, 168, 50, 233)
16
17 // For a cloud MQTT broker, type the domain name
18 // #define MQTT_HOST "example.com"
19 #define MQTT_PORT 1885
20
```

(2) MQTT theme settings, the specific parameters are set according to the contents of the configuration.yaml file on the MQTT server.

```
28 // Temperature MQTT Topics
29 #define MQTT_PUB_LED_S  "esp32/led/state"
30 #define MQTT_PUB_LED_C  "esp32/led/command"
31 #define MQTT_PUB_TEMP  "esp32/temperature"
32 #define MQTT_PUB_HUM   "esp32/humidity"
33 #define mqtt_username   "elecrow"
34 #define mqtt_password   "elecrow2014"
35
```