



SenseCAP Indicator

User Manual



Brief Introduction

SenseCAP Indicator is a 4-inch touch screen driven by ESP32 and RP2040 dual-MCU and supports Wi-Fi/BLE/LoRa communication. It is a fully open source powerful IoT development platform for developers. One-stop ODM Fusion service is also available for customization and quick scale-up.

Product Video: <u>https://youtu.be/IOdl5_MGbCw</u>

Content

Introduction
Features
Hardware Version
Specification
ODM Service
Get Started with SenseCAP Indicator
Hardware Overview
Button Function
Grove Interfaces
SX1262 LoRa Chip 11
System Diagram
Native Firmware
Wi-Fi Setting
Data Viewing
Setting
Development Tutorial
ESP32 Firmware Flashing 18
RP2040 Firmware Flashing 23
Resource





Introduction

SenseCAP Indicator is a 4-inch touch screen driven by ESP32 and RP2040 dual-MCU and supports Wi-Fi/BLE/LoRa communication.

The board comes with Type-C and Grove interfaces, supports ADC and IIC transmission protocols, and can easily connect to other peripherals with rich GPIOs.

SenseCAP Indicator is a fully open source powerful IoT development platform for developers. One-stop ODM Fusion service is also available for customization and quick scale-up.

Features

- **Dual MCUs and Rich GPIOs:** Equipped with powerful ESP32S3 and RP2040 dual MCUs and over 400 Grove-compatible GPIOs for flexible expansion options.
- **Real-time Air Quality Monitoring:** Built-in tVOC and CO2 sensors, and an external Grove AHT20 temperature and humidity sensor for more precise readings.
- Local LoRa Hub for IoT Connectivity: Integrated Semtech SX1262 LoRa chip (optional) for connecting LoRa devices to popular IoT platforms such as Matter via Wi-Fi, without the need for additional compatible devices.
- **Fully Open Source Platform:** Leverage the extensive ESP32 and Raspberry Pi open source ecosystem for infinite application possibilities.
- **Fusion ODM Service Available:** Seeed Studio also provides one-stop ODM service for quick customization and scale-up to meet various needs.

SenseCAP Indicator native firmware enables you to use it as a desktop air quality detector or you could customize one of your own styles. There are built-in tVOCs and CO2 sensors, and a Grove TH sensor is provided to connect externally to reduce heat interference to get more accurate temperature and humidity results.



The embedded SX1262 LoRa module enables you to build the LoRa application and connect your local LoRa sensors to the Cloud via Wi-Fi. For example, you could build a LoRa hub device to connect your LoRa sensors to your smart home ecosystem to implement Matter over Wi-Fi. In this way, the LoRa devices could be connected to the Matter ecosystem via Wi-Fi, without the need to buy a new Matter-compatible device.



The software of SenseCAP Indicator is open source. Developers could create various IoT applications such as:

- Air Quality Monitor
- Weather Station Display
- Sensor Data Dashboard
- Smart Home Assistant
- Mini Sensor Hub
- Stock Price Indicator
- Digital Album
- SOP Reminder

...









ChatGPT Indicator



On-site Alarm

Digital Album

It can also be used to develop various exciting applications integrating with third-party platforms, such as: AWS / ChatGPT / Matter / NodeRED / IoTex ...



Note: This sketch shows the development possibilities for the related IoT ecosystem, developers need to develop the firmware based on need.

SenseCAP Indicator is an interactive display and control terminal for various IoT applications. It provides developers with a powerful and interface-rich development platform powered by ESP32-S3 and RP2040 dual-MCU.

Don't wait anymore, start your wonderful development journey with SenseCAP Indicator now!

Hardware Version

The SenseCAP Indicator series offers four different versions: D1, D1S, D1L, and D1Pro. Each version is designed to meet different application needs without any extra cost from unnecessary hardware. Here are the differences between the versions:

Model	DI	DIS DIL		D1Pro
tVOC sensor	/	۲	/	۲
CO2 sensor	/	• /		۲
Grove TH Sensor	/	• /		۲
LoRa (SX1262)	/	/	۲	۲
Wi-Fi	Ni-Fi 💿 💿		۲	۲
Bluetooth	۲	۲	۲	۲



Specification

Screen	3.95 Inch, Capacitive RGB Touch Screen			
Screen Resolution	480 x 480 pixels			
Power Supply	5V DC, 1A			
Battery	N/A			
Processor	ESP32-S3: Xtensa® dual-core 32-bit LX7 microprocessor, up to 240 MHz RP2040: Dual ARM Cortex-M0+ up to 133MHz			
Flash	ESP32S3: 8MB RP2040: 2MB			
External Storage	Support up to 32GB Micro SD Card (not included)			
Wi-Fi	802.11b/g/n, 2.4GHz			
Bluetooth	Bluetooth 5.0 LE			
LoRa(SX1262)	LoRaWAN/(G)FSK, 21dBm 136dBm@SF12 BW=125KH on gateway antenna and e	Max Transmitted Power Sensitivity/- Iz RX Sensitivity, Up to 5km (depending nvironments)		
Concors(Optional)	CO2 (SCD41)	Range: 0-40000ppm Accuracy: 400ppm - 5000ppm ±(50ppm+5% of reading)		
Sensors(Optional)	TVOC (SGP40)	Range: 1-500 VOC Index Points		
	Grove Temperature and Humidity Sensor (AHT20)	Range: -40 ~ + 85 ℃/± 0.3 ℃; 0 ~ 100% RH/± 2% RH (25 ℃)		
Buzzer	MLT-8530, Resonant Frequency : 2700Hz			

ODM Service

Note:

If you want to customize your own SenseCAP Indicator, Seeed Studio provides one-stop <u>ODM</u> service for quick customization and scalp-up. Please contact iot@seeed.cc_if you have large quantity customization need.

With over 10 years of ODM & OEM experience, our engineers and product experts are proficient in delivering customization service for popular open-source hardware platforms, such as: Raspberry Pi, NVIDIA Jetson, Beagleboard, ESP32, and more.

We are committed to assisting you at any moment and shortening your path from idea to

products for emerging AIoT scenarios.



Get Started with SenseCAP Indicator

Hardware Overview



Button Function

Short press: Turn off /wake up the screen Long press for 3s: Switch on/switch off the device Long press for 10s: Factory reset

Grove Interfaces

There are two Grove interfaces for connecting Grove modules, providing more possibilities for developers.

Grove is a modular, standardized connector prototyping system and a strong open source



hardware ecosystem. (Click Grove - Seeed Studio to learn more) Grove - Seeed Studio

SX1262 LoRa Chip

The embedded SX1262 LoRa module enables you to build the LoRa application and connect your local LoRa sensors to the Cloud via Wi-Fi. For example, you could build a LoRa hub device to connect your LoRa sensors to your smart home ecosystem to implement Matter over Wi-Fi. In this way, the LoRa devices could be connected to the Matter ecosystem via Wi-Fi, without the need to buy a new Matter-compatible device.



Local LoRa Hub





Note: A2, A3, A10, A11, B2, B3, B10, B11 connect to RP2040 GPI08, GPI09, GPI00, GPI01, GPI02, GPI03, GPI015, GPI014

Native Firmware

SenseCAP Indicator native firmware enables you to use it as a desktop air quality detector, just

a few simple steps to enjoy.



Wi-Fi Configuration

Plug the 5V power adaptor into the USB type-C power connector, the device will power on automatically, then the display will show the WiFi setting page.

<	v	/iFi		X	
WiFi_0	001			(ŀ	
WiFi_0	02			(;	
WiFi_0	003		Ê	(ŀ	
WiFi_0	04		Ê	(;·	
WiFi_0	05		Ê	(;	
WiFi_0	006			(ŀ	

	R		
Cancel	Join	K WiFi	
WiFi_001		WiFi_001	Ŷ
Input password			J
******		WiFi_002	ê
		WiFi_003	ê ?
		WiFi_004	ê ?
		WiFi_005	ê ?
		WiFi_006	ê 🤶

Select the WiFi you need, input the password and connect.

Data Viewing

• Home page

Including the time, date, location info.



• Sensor data

Built-in tVOC and CO2 sensors, and an external Grove AHT20 TH sensor for more precise temperature and humidity readings.



Click the specified sensor to enter the detailed information page, and you can choose to display the value of 24h or a week.



Setting



Display Setting

Brightness: Adjust screen brightness

 $\operatorname{Sleep} \operatorname{Mode}$: Turn off the screen according to the interval you set



Date & Time Setting

Time Format: You can set 24H or 12H format.

Time Auto Update/Zone Auto Update: When the device is connected to WiFi, it will automatically obtain the corresponding time zone and date.

C Date & Time		Ř.
Time Format	24H	~
Time Auto Update		
Zone Auto Update		

Manual setting: If the time obtained through the time zone cannot automatically identify the winter time or device is offline, then you can manually set the time zone

< Date &	Time		X
Time Format		24H	~
Time Auto Update			
01/01/2023	00 : 01	00 : 01	00 01
Zone Auto Update			
Time Zone	итс +	v 0	~

Development Tutorial

ESP32 Firmware Flashing

Flash by Flash Download Tools (For Windows only)

- **Step 1**: Connect the device to your PC with the provided USB type-C cable.
- **Step 2**:Install the Flash Download Tools

Flash Download Tools for Windows

sh_do Sha	ownload_tool_3.9.3 re View				
>	This PC > Downloads > flash_download_tool_3	3.9.3 >		~ ē	Search flash_download_tool_3.9.3
^	Name ^	Date modified	Туре	Size	
	bin 🔂	8/23/2022 4:28 PM	File folder		
*	configure	1/18/2023 2:21 PM	File folder		
*	dl_temp	1/18/2023 2:22 PM	File folder		
*	doc	6/24/2022 7:09 PM	File folder		
*	logs	1/18/2023 2:24 PM	File folder		
*	🔅 flash_download_tool_3.9.3.exe	8/26/2022 6:58 PM	Application	15,955 K	В
*					

• Step 3: User interface setting

Double-click the .exe file to enter the main interface of the tool.

Chip Type: ESP32-S3

WorkMode: Develop

LoadMode: UART

C:\Users\hk\Downloads\flash_download_tool_3.9.3\flash_download_tool_3.9.3.exe	_		\times
			^
	_ □	×	1
ChipType:	ESP32-S3	~	
WorkMode	ESP32 ESP32		
	ESP32-D2WD		
LoadMode	SD22_52		
	SP32-C2		
			~

• Step 4: SPI Download Tab Configure

Click "..." and select the .bin file in the firmware file to configure the loading path.

There should be 3 .bin files in the firmware , they correspond to 3 different downloading addresses:

bootloader.bin - 0x0

partition-table.bin - 0x8000

terminal.bin - 0x10000

ESP32S3 FL	LASH DOWNLO	AD TOOL V3.9.3		_		\times
SPIDownload	d					
Iloads\te C:\Users' SPIFlashConfig SPIFlas	g SPI MODE QIO QUO QUUT DIO DOUT FASTRD	I-180\bootloader.bin \terminel\terminal-18 \terminel\terminal-18 \terminel\terminal-18 DoNotChgBin DockSettings CombineBin Default	Phpartition-table.bin Diterminal_demo.bin		0x0 0x8000 0x10000	
DownloadPan	el 1					
IDLE 等待						< >
START	STOP	ERASE COM: BAUD:	IOM3 21600			~

• Step 5: SPI Flash Configure

SPI SPEED: 40MHz SPI MODE: DIO

ESP32S3 FL	ASH DOWNLO	AD TOOL V3.9.3		-		×
SPIDownload	8					
		100				^
		- Iou\bootloader.bir		@	UXU	4
C:\Users	\nk\Downloads\	terminel\terminal-	80\partition-table.bin	@	0x8000	-
C:\Users	\hk\Downloads\	terminel\terminal-	80\terminal_demo.bin	@	0x10000	4
				@		_
				@		_
				@		
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				@		~
	QIO QOUT O DIO DOUT FASTRD	DoNotChgBir LockSettings CombineBir Default				
DownloadPan	el 1					_
IDLE 等待						< >
START	STOP	ERASE COM:	СОМЗ			~
		BAUD:	921600			~

• **Step 6**: Download Panel Configure

COM: Check the ports on your Device Manage, the USB-SERIAL is the correct one. **Baud**: 921600(recommended value)

🛃 Device Manager	E ESP32S3 FLASH DOWNLOAD TOOL V3.9.3 - C		
File Action View Help	SPIDownload		
	Alexandre 1982. Sectoral 1982. Sectoral terminal terminal 1982. Sectoral terminal 1982. Sectoral		
 3 Sund, vide and game controllers 5 System devices 5 Els System devices 0 Universal Serial Bus controllers 2 Universal Serial Bus devices 	DewnloadPand 1 IDLE 94 fb START STOP ERASE COME BAUD COME) V	

• **Step 6**: Start Downloading

Then click "START" to start the downloading.

ESP32S3 FLASH DOWNLOAD TOOL V3.9.3	-		×
SPIDownload			
Ibads\terminel\terminal-180\bootloader.bin C:\Users\hk\Downloads\terminel\terminal-180\partition-table.bin C:\Users\hk\Downloads\terminel\terminal-180\terminal_demo.bin	0 0 0 0	0x0 0x8000 0x10000	
	@		
SPI SPEED SPI MODE • 40MHz QIO • 26.7MHz QQUT • 26.7MHz QQUT • 20MHz DIO • 20MHz DIO • 20MHz DIO • BOMHz DIO • CombineBin Default			
Download Panel 1 DLE 等符			< >
START STOP ERASE COM: COMB BAUD: 921600			~

When it shows "FINISH", the flash has been completed.

C:\Users\hk\Downloads\flash_download_tool_3.9.3\flash_download_tool_3	ESP32S3 FLASH DOWNLOAD TOOL V3.9.3		-		×
case 04 test offset : 0 0x0 case 04 test offset : 65536 0x10000 case 0k test offset : 0 0x0	SPDownload Ø låsterminelsterminels 180 jaroufoader, bin Ø Cutternisk Stateminelsterminel 180 partition table bin	(න <mark>රං</mark> ක <mark>රං</mark>	×0 ×8000	Â
case ok test offset : 32763 0x2000 task off test offset : 65536 0x10000 onse ok (b)oading stub	CLUbershkuDownloadsUterminelVerminal 1803terminal_demo.bin	··· 0 ··· 0 ··· 0	a a a a a	<u>(10000</u>	
Running stub Changing baud rate to 115200 Changed. Compressed 22208 bytes to 14072 Compressed 3072 bytes to 104 Compressed 175/096 bytes to 047009 16 stub and send flash finish Lest offset : 0 0x0 case ok test offset : 32768 0x8000 case ok test offset : 65536 0x10000 case ok	SPIFlash-Config SPI Betto @ JOMHz OQU O 267.MHz OQUT O 200HHz ODUT O BOMHz ODUT O FASTRD Default O ASTRD		2		1_
Ubloading stub Stub running Granging baud Tate to 921600 Changing baud Tate to 921600 Changed. 22208 bytes to 14072 Compressed 3022 bytes to 14072 Compressed 1757696 bytes to 847609 is stub and send flash finish	DownloadPanel F412FACE1220 STA: F412FACE1228 FINISH AP, F412FACE122A ETHERNET: F412FACE122B START STOP ERASE COM: COM: BAUD: 921600				

There is "indicator_terminal_demo.bin" firmware (allinone) in the <u>sdk</u> . you can flash it to esp32.

components console console factory				Seeed-Solution / sensecap_indicator_esp32 Public O Code ⊙ Issues 11 Pull requests ⊙ Actions ⊞ Projects □□ Wiki ⊙ Security ⊵ Insights ⑧ Settings	(😒 Edit Pins 👻	⊙ Watch 2 +
README.md Gidf_psram_120r indicator_termin indicator_termin indicator_termin indicator_termin indicator_termin	n.patch nal_demo.bin			1 ³ main - sensecap_indicator_esp32 / examples / factory / Set Wvirgi123 init solk	Go 784	to file Add	file • ····
> terminal_demo LICENSE EREADME.md							15 hours ago 15 hours ago 15 hours ago
				E README.md			0
				Factory Bin This is the first version of bin for factory firmware which is programmed by terminal_demo. IDF Patch The patch is intended to achieve best perfermance of RGB LCD by using Octal PSRAM 120MHz feature. The normally under the default LCD PCLK of 18 MHz. The patch can be applied in IDF master (commit id:13159)	refore, the exam by following co	nples can work mmands:	
ESP32S3	LASH DOW	NLOAD TO	OL V3.9.3		_		×
Et\Sense Et\Sense Sense SPIFlashConf SPI SPEED 40MHz 26.7MHz 20MHz 80MHz	ig SPI MOD QIO QOUT DIO DOUT FASTRI	E Do	r_termina NotChgB kSettings ombineBi Default	demo.bin			
DownloadPa	nel 1						^
等待							~
START	STOP	ERASE	COM:	COM17			~
			BAUD:	921600			~

Flash by IDF

For Linux and MacOS: <u>Standard Toolchain Setup for Linux and macOS</u> For Windows: <u>Standard Setup of Toolchain for Windows</u>

There is "indicator_terminal_demo.bin" firmware (allinone) in the \underline{sdk} . you can flash

it by idf.

cd <sdk>/examples/factory/

 $esptool.py\ write_flash\ 0x0\ indicator_terminal_demo.bin$

also you can build, flash and monitor the project.

 $cd \ <\!\!sdk\!\!>\!\!/examples/\text{terminal_demo}/$

idf.py -p PORT build flash monitor

RP2040 Firmware Flashing

Flash by .uf2 file

• **Step 1**: Connect the device to your PC

 ${\tt Long\ press\ this\ internal\ button,\ then\ connect\ the\ device\ to\ your\ PC\ by\ the}$

provided USB type-C cable, release the button once connected.



• **Step 2**: Firmware Flash

After the connection is successful, your PC will show a disk.

•••	< > Jessie的 MacBook Air	88 ≔ □□ □		
个人收藏	名称	∧ 修改日期	大小	种类
④ 最近使用	> 🧠 网络			邻域
📥 应用程序	A Macintosh HD	2022年12月2日 19:37	83.05 GB	启动宗卷
🚞 config	> RPI-RP2	▲ 1970年1月1日 08:00	12 KB	可移除的宗卷
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⑤ 下载				
位置				
☐ iCloud 云盘				
🔲 Jessie的Ma				
🖂 RPI-RP2 🔺				
🛞 网络				
标签				

Copy the .uf2 file in the firmware package to the disk, then the disk will log

out.

The upgrade will run automatically.

•••	< > RPI-RP2	ᆱ≡
个人收藏	名称	∧ 修改日期 大小 种类
 ④ 最近使用 ▲ 应用程序 〇 config ■ 桌面 ④ 下载 		2008年9月5日 16:20 241 字节 HTML文本 2008年9月5日 16:20 62 字节 纯文本文稿
位 ☐ iCloud 云盘 ☐ Jessie 的 Ma @ RPI-RP2 ▲ @ 网络		

Flash by Arduino IDE

• **Step 1**: Install Arduino IDE

Arduino IDE

• **Step 2**: Add the Raspberry Pi Pico Board

Open your Arduino IDE, click on Arduino > Settings, and copy the below URLto Additional Boards Manager URLs:

https://github.com/earlephilhower/arduino-

pico/releases/download/global/package_rp2040_index.json

About Arduino		main Arduino 1.8.	19	
Settings ¥				
Services >				
Hide Arduino 2017 tx, h> Hide Others \\2017 tx h> Show All h> Quit Arduino 21 Q h>		Preferences	k .	
include <#ire.h>	Sketchbook location:			
include <spi.h> Minclude <sd.h></sd.h></spi.h>	Editor language:	no English (English)	(requires restart of Arduino)	
include <packetserial.h></packetserial.h>	Editor font size: 12	2		
ensirionI2CSht4x sht4x; ensirionI2CSgp40 sgp40; ensirionI2CScd4x scd4x;	Interface scale:	Automatic 100 0% (requires Default theme 3 (requires rest	restart of Arduino) ut of Arduino)	
dafruit_BMP3XX bmp;	Show verbose output during:	compilation upload		
OCGasIndexAlgorithm voc_algorithm;	Compiler warnings:	None 😌		
acketSerial myPacketSerial;	🖸 Display line numbers	Enat	ole Code Folding	
tring SDDataString = "";	Verify code after upload Check for updates on startup	o Use Save	external editor when verifying or uploading	
define PKT_TYPE_SENSOR_SCD41_CO2 0XB2	Additional Roards Manager (IR) st	howartandulan also teleasos (da	unlead (alaba) (aaskaga m2040 inday isan	
define PKT_TYPE_SENSOR_SHT41_TEMP 0X83 define PKT_TYPE_SENSOR_SHT41_HUNIDITY 0 define PKT_TYPE_SENSOR_TVOC_INDEX 0X85 void sensor_data_send(uint8_t type, floc	More preferences can be edited d /Users/jessie/Library/Arduino15 (edit only when Arduino is not ru	rectly in the file /preferences.txt nning)	moad/globa/package_pzo+o_moex_son	
<pre>uint8_t data_buf[32] = {0}; data_buf[0] = type;</pre>			OK Cancel	

Click on Tools > Board > Board Manager.



Search and install "Raspberry Pi Pico/RP2040" in the Boards Manager



• Step 3: Add Libraries

Download these libraries we need:

Serial communication protocol

SGP40 TVOC sensor library

Transfer index library: Sensirion Gas Index Algorithm

SCD41 CO2 sensor library

AHT20 temperature and humidity sensor libray

Sensition Arduino Core library

Navigate to Sketch -> Include Library -> Add .ZIP Library, then select the

libraries you download.



- Step 4: Connect the device to your PC with the provided USB Typc-C cable.
- Step 5: Select the board

Tools > Board > Raspberry Pi PR2040 Boards > Raspberry Pi Pico



Port: Select the "usbmodem" one

Arduino File Edit Sketch	Tools Help		🖾 🖾	· 🤊 🗞 🔨 🗩	A Q S Wed Jan 18 17:56:36
• • •	Auto Format	main Arduino 1.	1.8.19		
	Archive Sketch				
VV BBB	Fix Encoding & Reload				
main	Manage Libraries				
1 #include <arduino.h></arduino.h>	Serial Monitor				
3 #include <sensirioni2csnt4x.n></sensirioni2csnt4x.n>					
4 #include <sensirioni2cscd4x.h> 5 #include <adafruit_sensor.h> 6 #include "Adafruit_BMP3XX.h"</adafruit_sensor.h></sensirioni2cscd4x.h>					
7 #include <vocgasindexalgorithm.h< th=""><th></th><th></th><th></th><th></th><th></th></vocgasindexalgorithm.h<>					
8 0 tipeludo deino ha	Flash Size: *2MB (no FS)*				
10					
11 #include <spi.h></spi.h>					
12 #include <sd.h></sd.h>	RTTI: "Disabled"				
14 #include <packetserial.h></packetserial.h>	Stack Protector: "Disabled"				
15					
16 Sensimion12CSnt4x Sht4x; 17 Sensimion12CSan40 san40;	Debug Port: "Disabled"				
18 SensirionI2CScd4x scd4x;					
19 20 4 4 5 - 11 Dig 200 1					
20 Addirutt_bAP3AA bip; 21					
22 VOCGasIndexAlgorithm voc_algorit					
23 24 DecketSeriel m@ecketSeriel:					
25					
<pre>26 String SDDataString = ""; 27 20</pre>	Programmer	/dev/cu.usbserial-1310 /dev/cu.wlan-debug			
28 29 #define PKT_TYPE_SENSOR_SCD41_CO. 30	Burn Bootloader				
31 #define PKT_TYPE_SENSOR_SHT41_TEP 32 #define PKT_TYPE_SENSOR_SHT41_HU 33 #define PKT_TYPE_SENSOR_TVOC_INDI 34	MP 0XB3 MIDITY 0XB4 EX 0XB5				
<pre>35 void sensor_data_send(uint8_t t) 36 { 37 uint8_t data_buf[32] = {0};</pre>	ype, float data)				
<pre>38 data_buf[0] = type; 30 mmmmu & data buf[1] & data d'</pre>					

• Step 6: Open the example code file

File > **Open**, then select the example code file (.ino file).

We provide an example code file, you can modify the code according to your needs.

the same should be	
🗧 🗧 🗧 New 30 N	main Arduino 1.8.19
🖉 🚱 💽 🖸 Open 🗱 O	Q
Upen Recent >	
main Sketchbook >	M
1 #include < Examples >	
3 #include < Close #W	
4 #include <s 30="" s<="" save="" td=""><td></td></s>	
S #include A Save As 0 # S	
7 #include <v calus<="" dans="" td=""><td></td></v>	
8 Page Setup 10 M P	
10	
11 #include <spi.h></spi.h>	
12 #include <sd.h></sd.h>	
14 #include <packetserial.ho< td=""><td></td></packetserial.ho<>	
15	
16 SensirionI2CSht4x sht4x; 17 SensirionI2CSan40 can40;	
18 SensirionI2C5cd4x scd4x;	
19	
20 Adafruit_BMP3XX bmp;	
22 VOCGasIndexAlgorithm voc_algorithm;	
23	
24 PacketSerial myPacketSerial; 25	
26 String SDDataString = "";	
27	
29 #define PKT_TYPE_SENSOR_SCD41_CO2	9X82
30	
31 #define PKT_TYPE_SENSOR_SHT41_TEMP 1 32 #define PKT_TYPE_SENSOR_SHT41_HUMTD	XXE3 TV AVEA
Done uploading.	

• **Step 7**: Verify and Upload the file.





Resource

IDF Downloard: <u>Standard Toolchain Setup for Linux and macOS</u>

Standard Setup of Toolchain for Windows

SenseCAP Indicator ESP32 SDK: <u>SenseCAP Indicator SDK for esp32</u>

SenseCAP Indicator RP2040 Examples: <u>SenseCAP Indicator examples for rp2040</u>

Classification: Genel\Public