HANSY

1 WELCOME

The time to sold all the TTGO is around 1 hour.

The only difficulties is to sold the 74HC14 SOIC chip

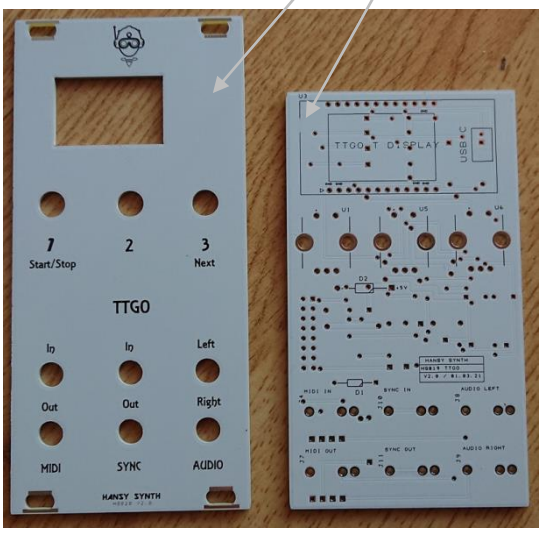
2 THE PCBS

There is two PCB in this KIT.

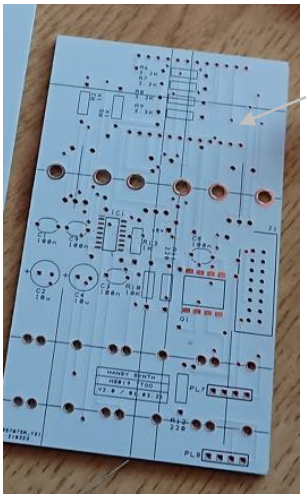
- The Front panel PCB
- The TTGO PCB

FRONT PANEL

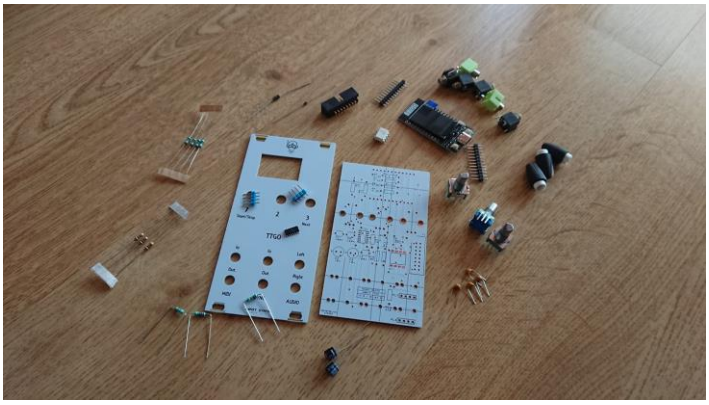
TTGO PCB TOP



TTGO PCB BOTTOM



3 BILL OF MATERIAL



The BOM can be find on the web site

BOM TTGO

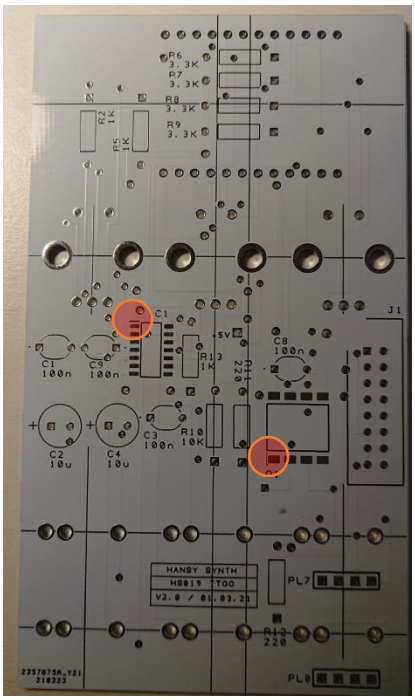
REF		REF RS	PU TTC	REM	TOTAL	PRICE	
PCB	Board		6	HANSY SYNTH	1	6	
						0	
6N137 SMD	Opto	Link	1,06	RS componant 9034087	1	1,06	SMD Part
1N4148	Trans	Link	0,06	RS componant 739029	1	0,06	
1N4004	Trans	Link	0,21	RS componant 628902	1	0,21	
74HC14 SMD	IC	Link	0,3	RS componant 7989026	1	0,3	SMD Part
						0	
R 220	R	Link	0,2	RS componant 7077612	2	0,4	
R 3,3K	R	Link	0,2	RS componant 7077587	4	0,8	
R 1K	R	Link	0,2	RS componant 7077666	3	0,6	
R 10K	R	Link	0,2	RS componant 7077745	1	0,2	
						0	
CAP 100nF	C	Link	0,015	RS componant 5381203	4	0,06	
CAP 10uF	C	Link	0,28	RS componant 117035	2	0,56	
						0	
Green Thonkiconn Stereo 3.5mm Audio Jacks (PJ366ST) (x1)	J	Link	0,55	Thonk	2	1,1	Thonk Green Thonkiconn Stereo 3.5mm Audio Jacks (PJ366ST)
Thonkiconn Mono 3.5mm Audio Jacks (PJ398SM) (x1)	J	Link	0,45	Thonk	4	1,8	Thonk Thonkiconn Mono 3.5mm Audio Jacks (PJ398SM)
Washer for the Audio Jack	M	Link	0,2	Thonk	6	1,2	Hex Nuts
Encoder Ali express 15mm		Link	0,32	Ali Express	3	0,96	Othe encoder also available on Mouse RS Farnell....
Knob Encodeur		Link	1	Thonk	3	3	Small Soft Encoder (D-shaft 10mm) other part available on Aliexpress
TTGO Display		Link	8	Ali Express	1	8	
						0	
4 points connectors		Link	0,5	Ali Express	2	1	
HE10 16 points Femalle		Link	0,43	RS componant 8323500	1	0,43	
						0	
					TOTAL	27,74	

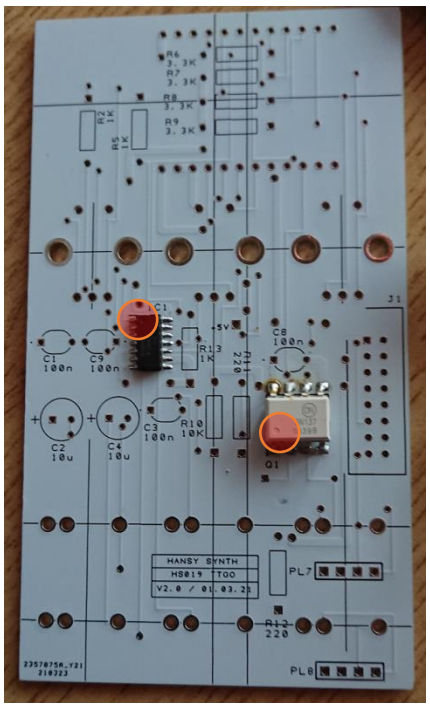
4 SMD CHIP

For these 2 chips you need to find the pin n°1

You can find the orientation of the chip I the PCB, and find the pin n°1 on the chip (a little point).

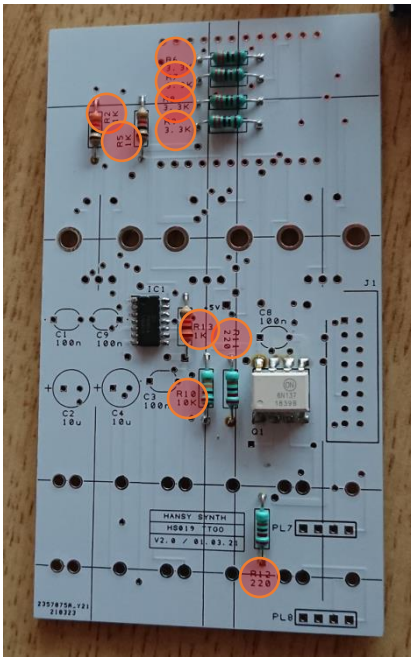
See the red circles in the following images

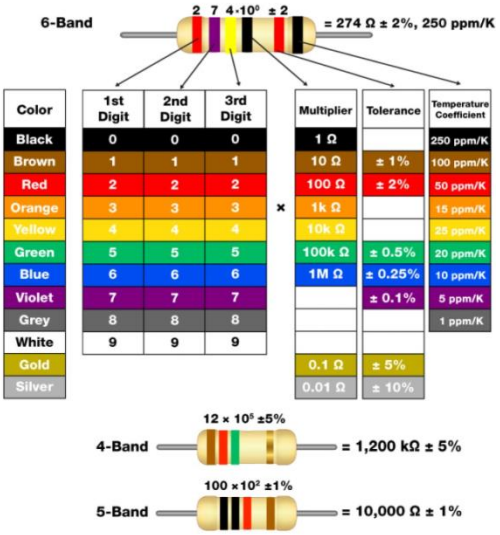




5 RESISTORS

For the resistors you can find all the values on the PCB.

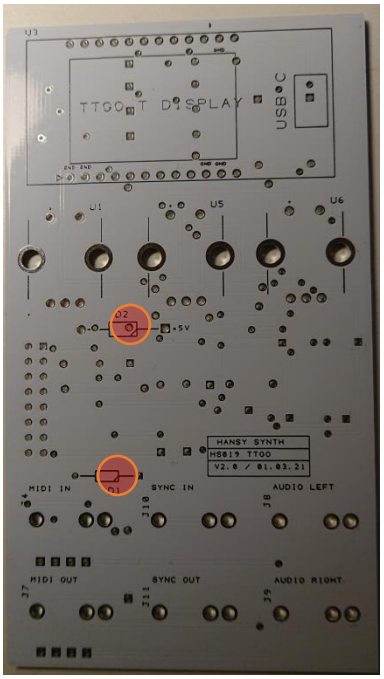


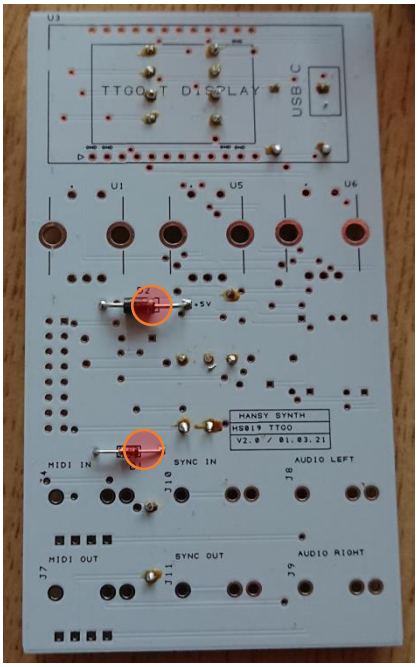


6 DIODES

For the two diodes you need to check the sense of the component.

You should find a white line on them



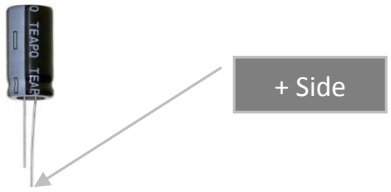


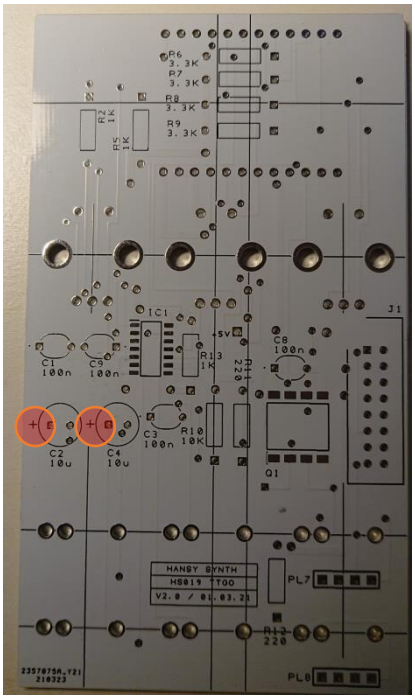
7 CAPACITORS

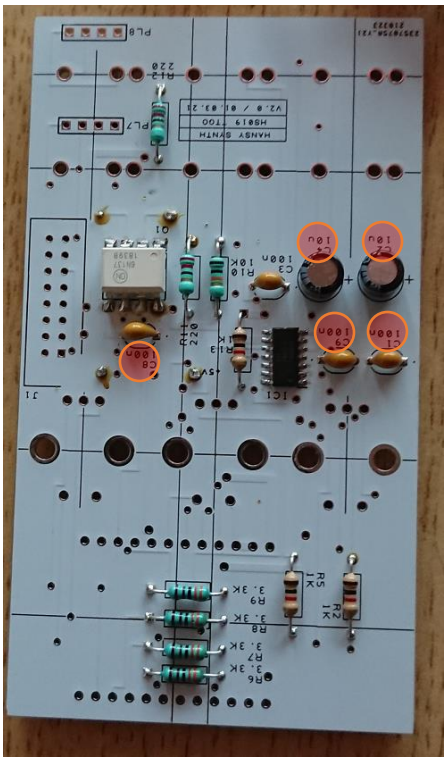
You have two types of capacitor.

- The 100nF - orange
- The 10uF – black and silver

For the 2 black/silver please check the + sign and the longer leg is the +

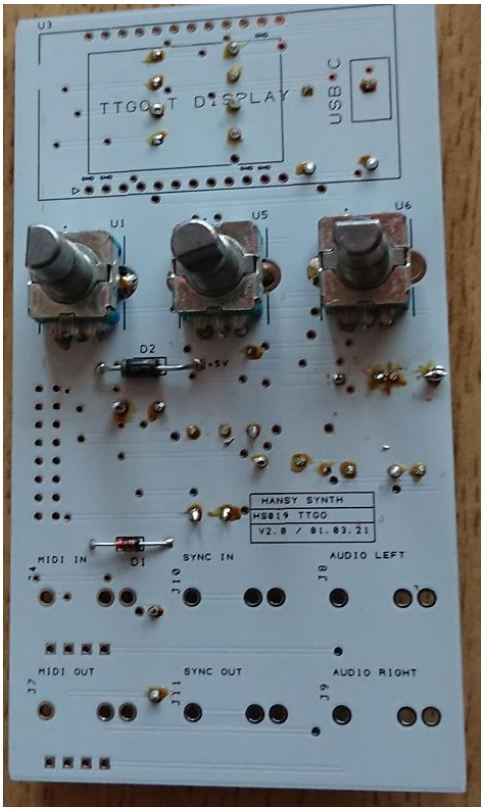






8 ENCODERS

Just place the encoders



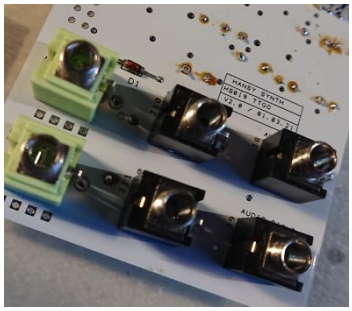
9 MINI JACKS

Place the Mini jack without sold them.

Check if the two green jacks are on the left side

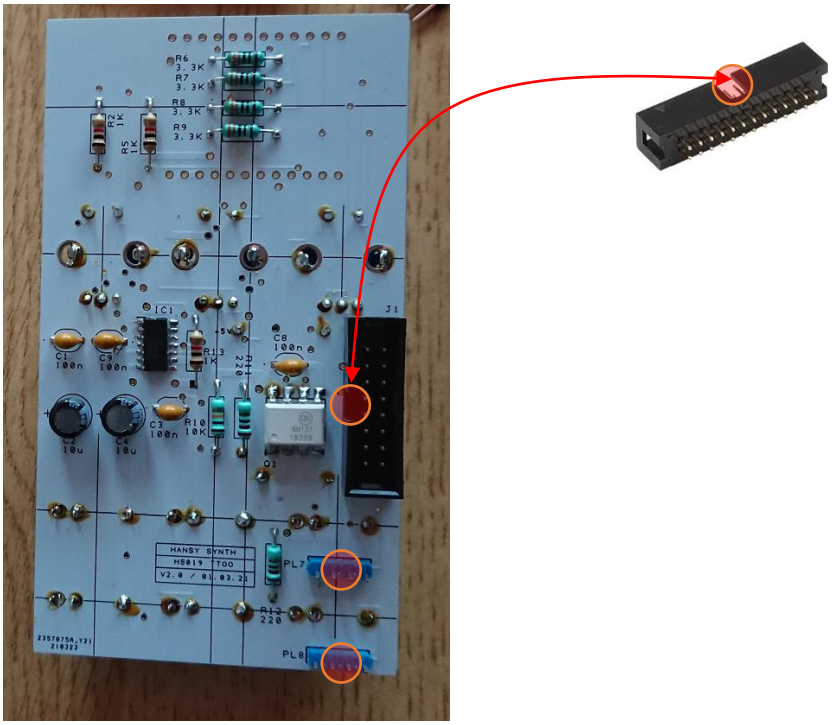
Place the front panel PCB to have a good position for the mini jack

Return and sold the midi jack



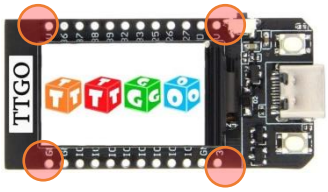
10 CONNECTORS

Please check the side of the black connector



11 TTGO

Just sold 2 points on the two TTGO connectors

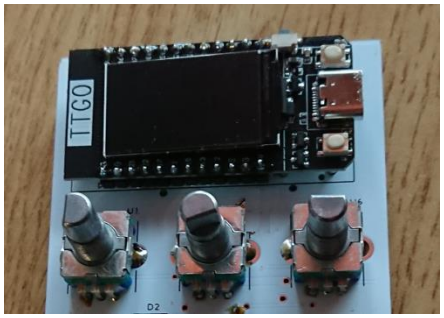


Place the TTGO on the PCB, insert the USB cable and place the Front panel

Return all and sold 4 only points on the PCB

Remove the front panel

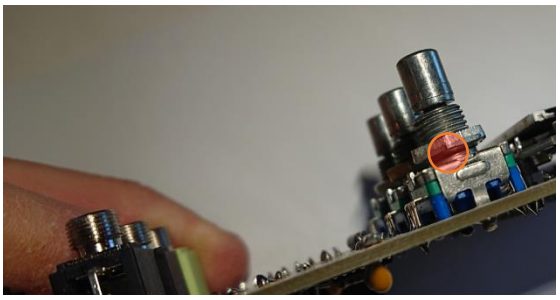
Sold all the other points



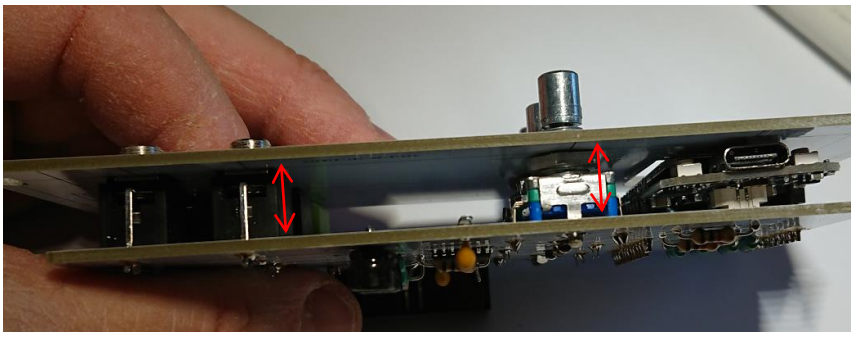
12 FRONT PANEL

Insert the 3 nuts for the encoders

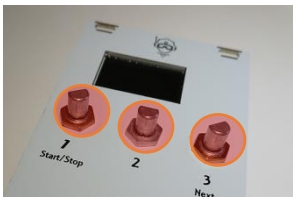
The goal is to have the same distance on the mini jacks and encoder side



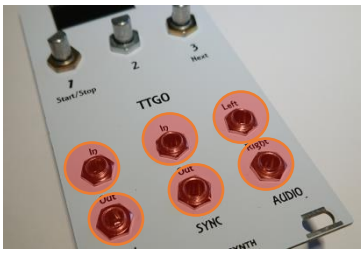
Place the front panel PCB



Place the three other nuts



Place the 6 nuts for the mini jacks

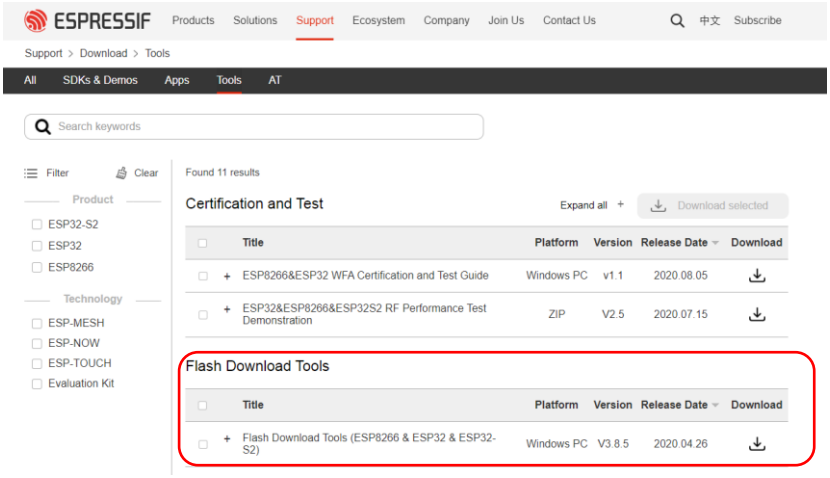


Place the Knobs

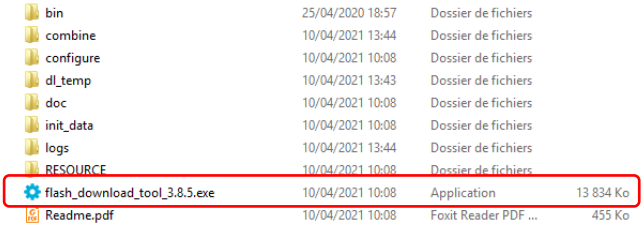
13 LOAD THE FIRMWARE AND CONFIGURATION

Download the Flash Download Tools (ESP8266 & ESP32 & ESP32-S2) here:

[ESP32 Download tool]

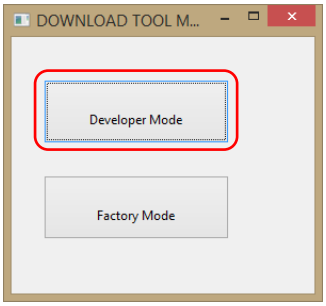


Unzip the files you should have the following folders



Launch the flash_download_tool_3.8.5.exe (wait a little bit)

Select the developer mode

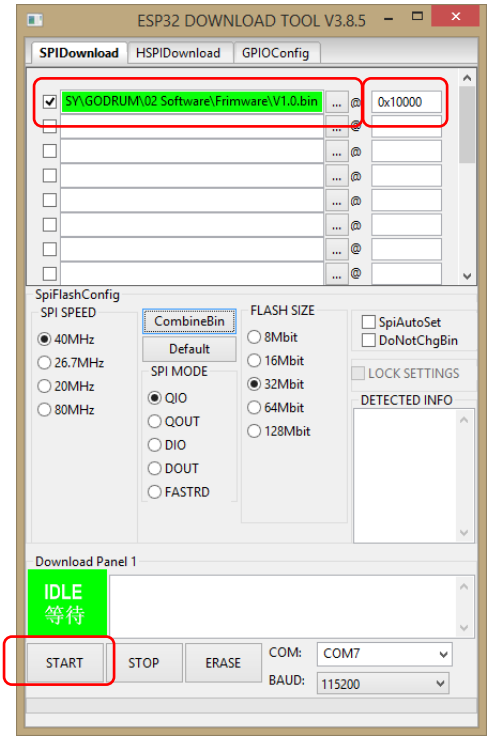


Select the ESP32 Download tool

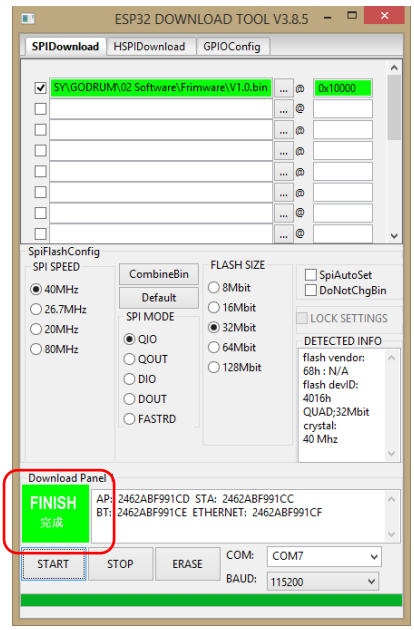
Select the firmware on the first line et set the @ 0x10000

Select the check box

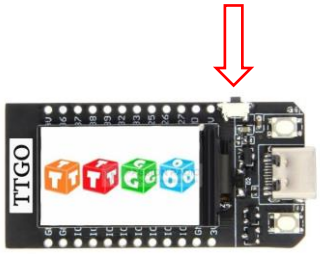
Click on start



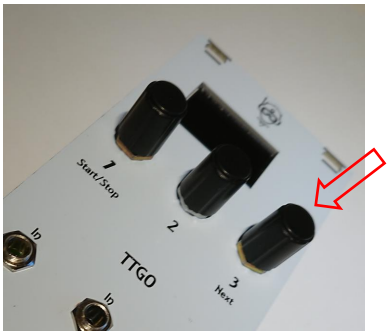
At the end of the programmation you whould have the FINISH BOX



Then push the restart button on the TTGO



For the configuration push the button n°3 and reset the TTGO, then turn the 3 encoders clockwise.



To reset all the configuration you can start the TTGO with the pushbutton 1 on.