

Dear TURTLE user,

Thank you for choosing the TRT-electronics TURTLE trigger to achieve perfect TTL or manual control in your underwater photography setup.

This product is designed for users who want to utilize TTL, MANUAL, or even HSS functions with their underwater strobes.

The i-TURTLE 3 SMART version is compatible with both DSLR and mirrorless (MILC) cameras.

What's in the box you purchased:

- 1 trigger unit with a battery configured for Nikon camera protocol
- 1 LED adapter to mount inside your underwater housing window
- 1 USB-C to USB-C combo cable for programming and charging
- 1 USB-C to USB-B adapter (if your computer lacks a USB-C port)
- 1 spare battery
- 1 silica gel packet to protect the SMD LEDs from moisture
- 1 protective case for safe transport during your trips

Compatibility:

Currently tested on the following systems:

Nikon MILC: Z30, Z50, Z6, Z6 II, Z7, Z7 II, Z8, Z9

Nikon DSLR: D5, D4s, D4, D850, D810, D810A, D800, D750, D600, D500, D300, D300s, D7500, D7200, D7100, D7000, D90

This list may expand—please refer to the product description on our website for the latest updates.

Available flash functions:

- TTL/MANUAL switching from the camera menu during the dive
- First curtain sync (TTL / MANUAL from camera menu during the dive)
- Second curtain sync (TTL / MANUAL from camera menu during the dive)
- In manual mode, HSS (High-Speed Sync) is automatically activated above the maximum flash sync speed. On cameras where HSS manual mode is available. (Marelux, AOI, HF-1, Retra etc)

Supported strobes in TTL:

- Ikelite DS160, DS230
- Seaflash 60D, 160D
- Inon Z240 / Z330
- Sea&Sea YS-D2J, YS-D3, YS-D3 DUO
- Retra PRO X MILC
- Retra PRO MAX DSLR/MILC
- AOI Intelli Strobe (SONY settings in the strobe)
- Backscatter HF-1 (SONY settings in the strobe)
- APOLLO III V2.0, APOLLO S

Getting Started

Software setup

If you did not request pre-configuration, please download the Setup program.
(For Windows: from the product page | For Mac: from the App Store)



- **Setup TURTLE** – Configure TTL strobe profiles and manual mode
- **Check TURTLE** – Check current settings and battery level
- **Help** – Guides for configuration and supported strobe types
- **About** – Information about the company and product
-

Setup video:

<https://www.youtube.com/watch?v=UVkscXZPOQU>

Step-by-step instructions for setup the trigger with software

SETUP TURTLE

1. Turn off the trigger



2. Connect it to your computer using the USB cable provided



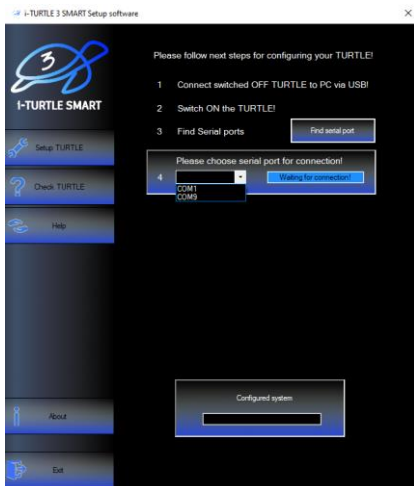
3. Launch the software and open the "Setup TURTLE" menu



4. Turn the trigger ON while connected.

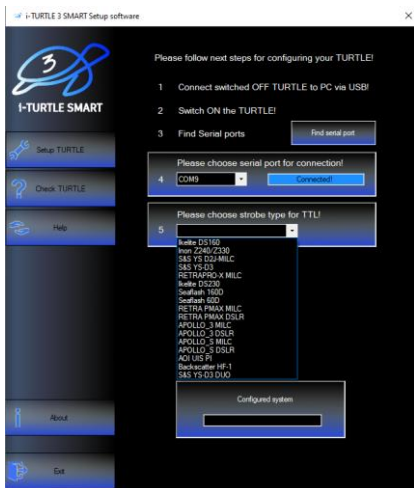


5. Click “Find Serial Port”, and select the second COM port in the dropdown.

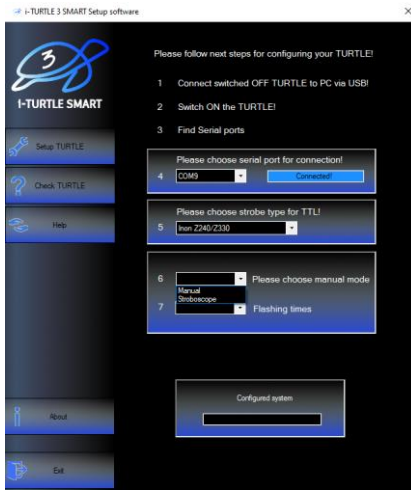


If multiple devices use virtual COM ports, try different ones if needed

6. Choose the TTL strobe profile you wish to use



7. In the next menu, configure the Manual Mode:



Manual mode offers a basic manual flash option, which can be activated from the camera's menu. In this mode, the camera will emit a single flash, and the trigger handles it accordingly. However, the TURTLE trigger is capable of much more.

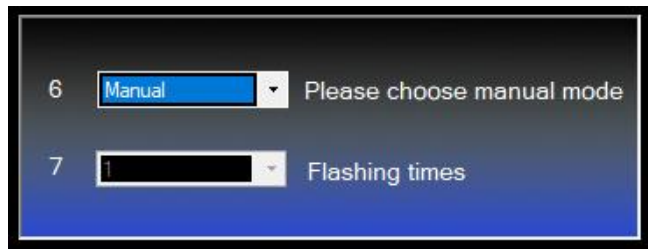
1.MANUAL: Trigger forwards either 1st or 2nd curtain flash from the camera.

2.STROBOSCOPE: Advanced users can set multiple flashes within a single exposure (1/10–2s interval).

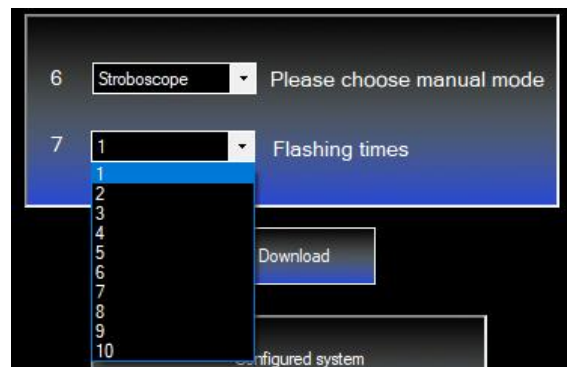
Stroboscope mode explanation:

<https://www.youtube.com/watch?v=jPMbL5A6AQg>

1.

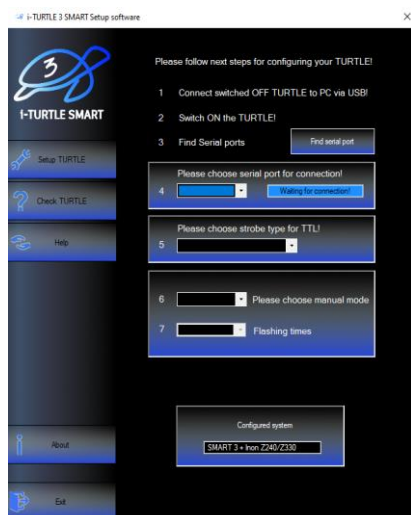


2.



8 . Click “Download” to upload the settings to the trigger.

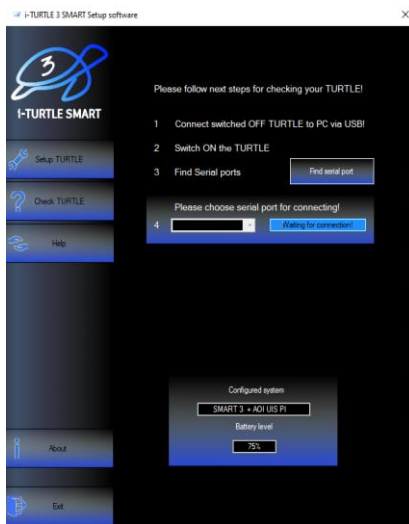
You’ll see confirmation in the lower info window.



CHECK TURTLE

If you want to check the battery level, there are two options:

You can either press the small button on the back of the trigger a few times until it starts flashing — we'll cover this in more detail later — or you can check it in the setup software under the **CHECK TURTLE** menu



Repeat steps 1–5, then click the **“Setup Checking”** button. The info window will show the selected strobe and the battery level.

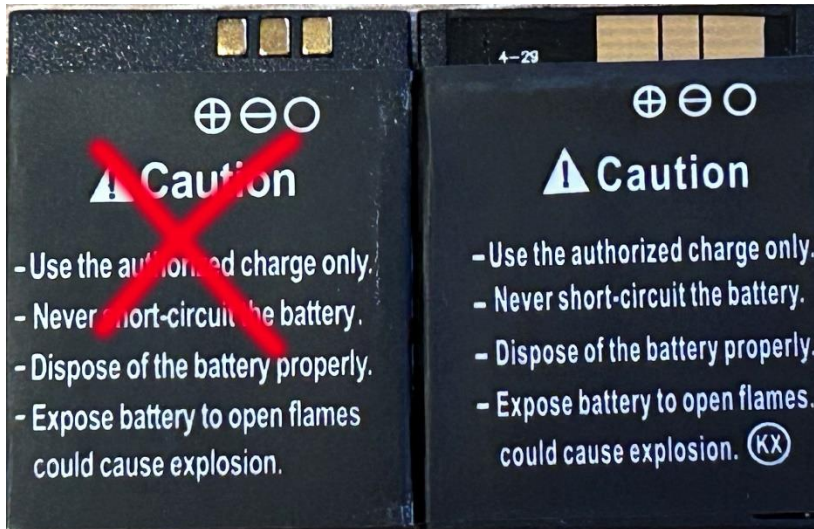
Hardware overview



1. Battery

This is the first TTL trigger on the market with a user-replaceable battery.

It uses a standard LQ-S1 battery (commercially available), but only one specific type is compatible—please check connector type before purchasing.



This battery can provide power for approximately 6000 shots, assuming the camera's sleep mode is enabled.

If sleep mode is not enabled and the camera remains active continuously, the battery may discharge within 5 days. Battery capacity and charge level can be checked via the software, but you can also get feedback by pressing the SMART button on the back of the i-TURTLE 3 trigger.

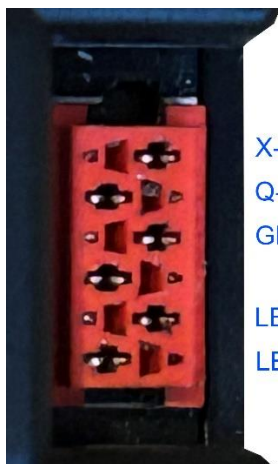
It's recommended to turn off the camera first, then power cycle the TURTLE (off and on again). The trigger can remain connected to the camera.

Then, press the button and observe the number of LED flashes below the SMART label to determine the battery level.

🔧 Battery replacement video:

<https://www.youtube.com/watch?v=x1hy1vVlnBw>

2. Strobe connector:



X-Trigger
Q-Quench
GND
LED -
LED +

If you need a wired solution for your underwater setup, we can provide various connector types where the X-trigger, Quench, and GND lines are exposed.

By default, we offer optical solutions.

TTL functionality is only guaranteed when using the LEDs supplied by us.

3. Rear buttons & indicators



Battery level
indicator
4 flashes = 100%
3 flashes = 75%
2 flashes = 50%
1 flash = 25%

Battery check
button –
activates the
SMART LED
feedback

Main switch
– on/off

Charge
indicator – lit
during
charging, turns
off when full

USB-C port – for
charging and
programming

Warranty:

The product comes with a 2-year manufacturer's warranty.

Shipping costs for returning a faulty product are not covered by the warranty.

We wish you great dives and successful photography!