

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 s-TURTLE 3 SMART version is compatible with sony 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:

Sony MILC: A72, A7R2, A7S2, A73, A7R3, A7S3, A7R4, A74, A1, A9, A9II, A7C, A7CR, A7CII, 6X00 series
HI+ burst mode tested and supported: A74, A1, A7R5, A9II)

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

Available flash functions:

- TTL/"WL" switching from the camera menu during the dive
- First curtain sync (TTL from camera menu during the dive)
- Second curtain sync (TTL from camera menu during the dive)
- In manual mode, HSS (High-Speed Sync) is automatically activated in „WL" mode above the maximum flash sync speed.

Supported Strobes in TTL:

- Ikelite DS160, DS230
- Seaflash 60D, 160D
- Inon Z240 / Z330
- Sea&Sea YS-D1, YS-D2J, YS-D3, YS-D3 DUO
- Subtronic 270
- Retra PRO X, PRO MAX
- Backscatter Mini Flash 2 (MANUAL / HSS)
- AOI Intelli Strobe
- Backscatter HF-1
- 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
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Setup video:

<https://www.youtube.com/watch?v=8gUj3aq7KV4>

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



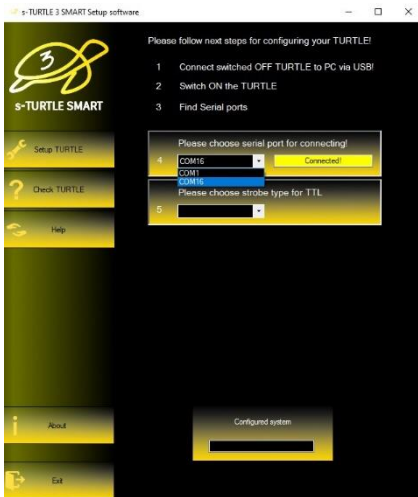
3. Launch the software and open the "Setup TURTLE" menu



4. Turn the trigger ON while connected.

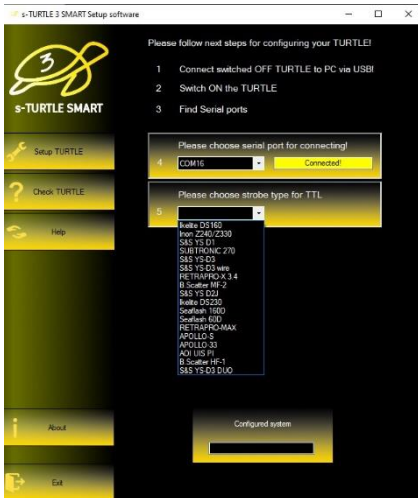


5. Click "Find Serial Port", and select the second COM port in the dropdown.

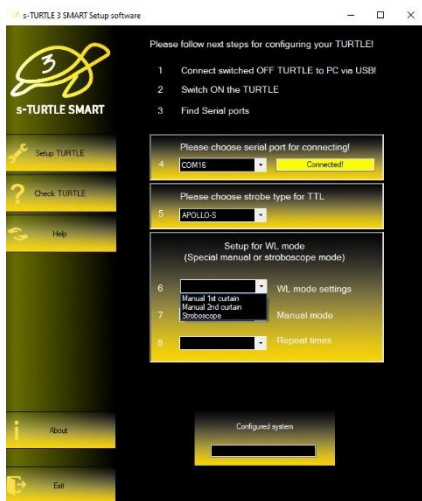


If multiple devices use virtual COM ports, try different ones if needed

6. Choose the TTL strobe profile you wish to use



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



Unfortunately, with Sony systems, switching to manual flash mode is not available from the camera menu. That's why we developed a solution, which we placed under the so-called "WL" mode. This can be found in the camera's FLASH menu. If you activate it, our custom functionality will be enabled.

Within this mode, you can choose from three functions, of which one can be used during a dive:

- **First Curtain**
In this mode, the system skips the pre-flash and sends a manual trigger signal at the first curtain.
- **Second Curtain**
Here, the manual trigger signal is synchronized with the rear curtain.
- **Stroboscope**
In this mode, the trigger fires multiple times, automatically spaced between 1/10 sec and 2 seconds, based on the selected setting.

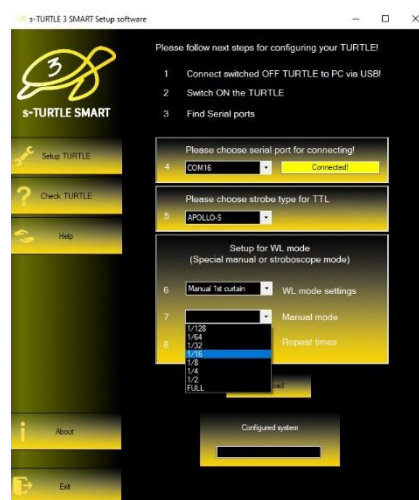
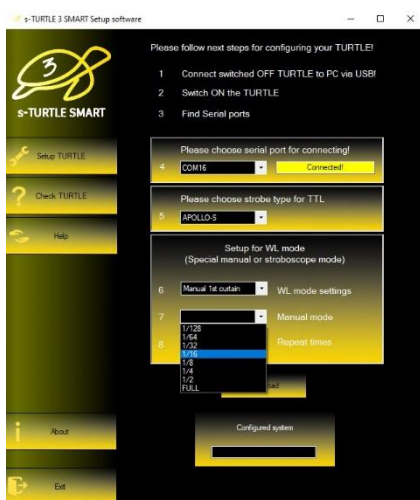
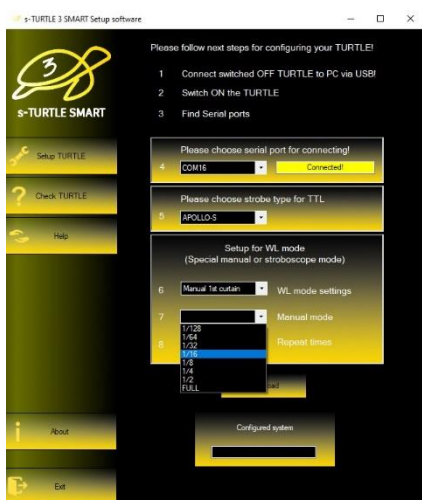
■ Stroboscope mode explanation:

<https://www.youtube.com/watch?v=jPMbL5A6Aqg>

Manual First curtain.

Manual second curtain

Stroboscope mode

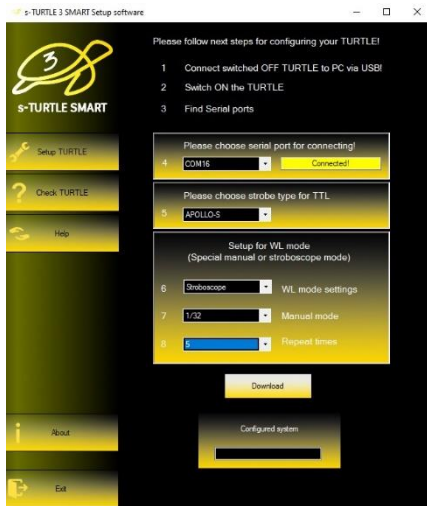


In MANUAL MODE, you can set the flash duration/power of the LEDs.

We kept this option primarily because of older, lower-quality optical cables, where higher brightness was needed for reliable triggering.

By default, a power setting of 1/32 or 1/16 is recommended.

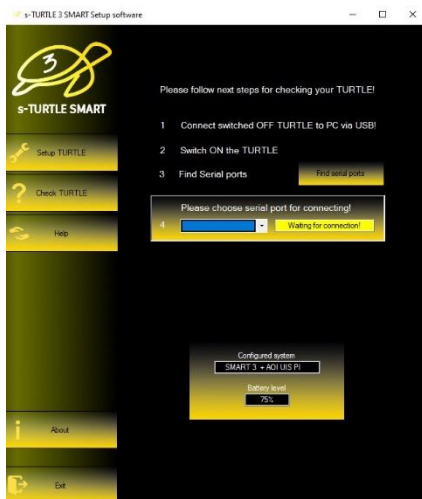
8 . Click “Download” to upload the settings to the trigger.
You’ll see confirmation in the lower info window.



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.

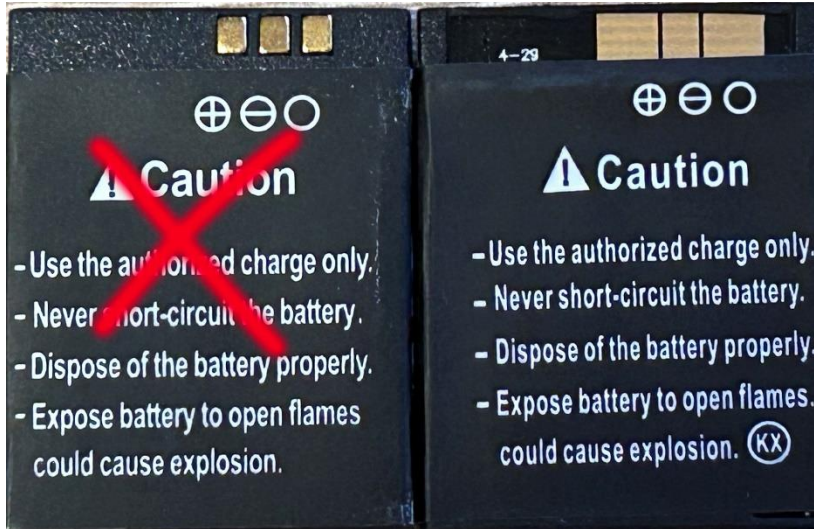
Hardware overview



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.

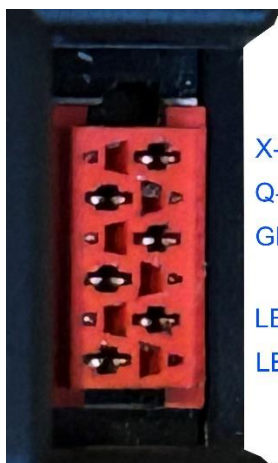
It's recommended to turn off the camera first, then power cycle the TURTLE (off and on again). The trigger can remain connected to the camera.

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!