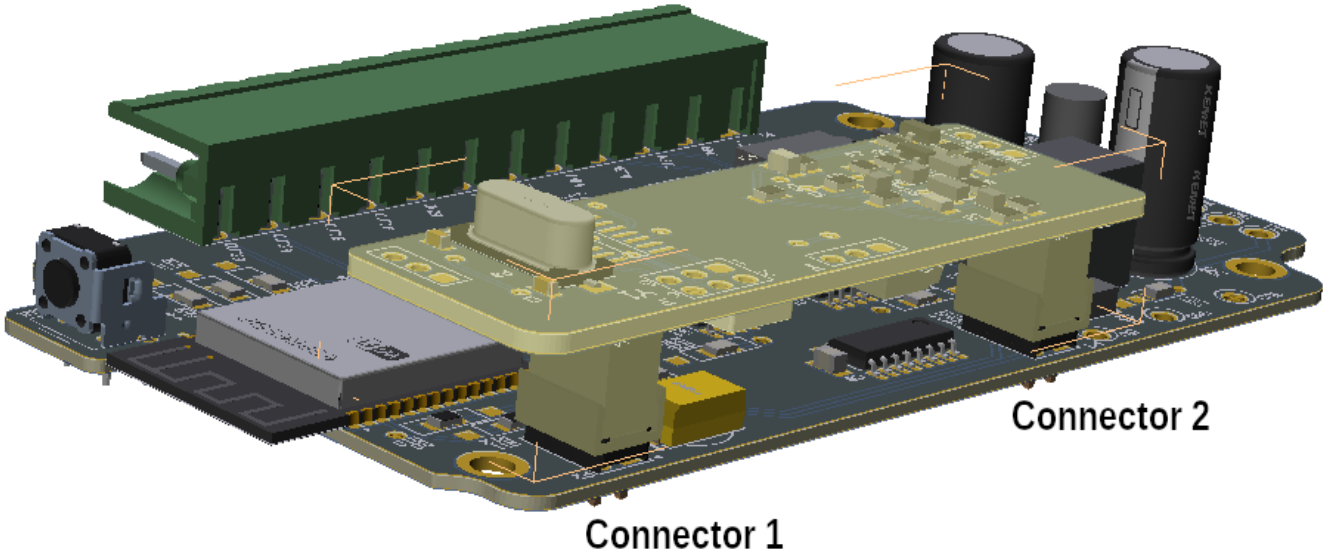
SeaTalk Module for *Pitufino* Gateway

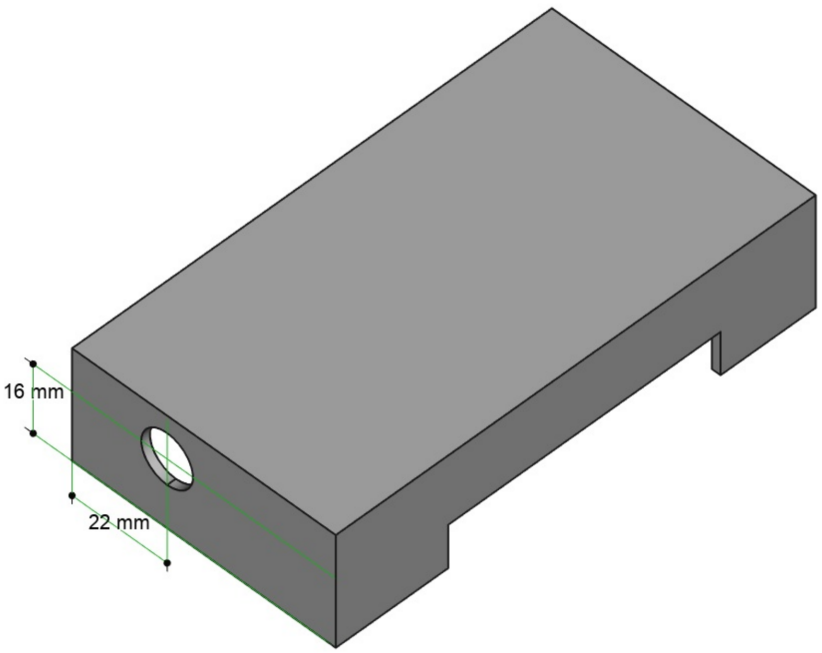
The SeaTalk Module adds SeaTalk1-communication capabilities to your *Pitufino* Gateway (hardware versions 1.0 and 1.1) to receive navigation data from older Raymarine and Autohelm devices and to remote-control SeaTalk1-capable autopilots. The module further provides a relay output to switch an external alarm buzzer/siren/lamp.

Installation Instructions

Unplug and remove your *Pitufino* from its mounting position. Open the housing by removing the four screws on the back. The module has two socket connectors to be plugged onto the pin connectors of *Pitufino*'s circuit board. Hardware version 1.1 has two corresponding pin connectors (see image) and installation is straightforward. Hardware version 1.0 has only one pin connector (only "Connector 1") and to ensure a robust mounting, a bead of polyurethane adhesive/sealant (e.g. Sikaflex or 3M products) is required to hold "Connector 2" in place on the circuit board. Let the adhesive/sealant cure before proceeding.



The module comes with a cable, so a hole needs to be drilled into the housing. The module is shipped with a "PG7" grommet which ensures that any external pull on the cable is taken by the housing instead of the module. This grommet requires a hole with 12mm diameter and the recommended position is shown in the image.



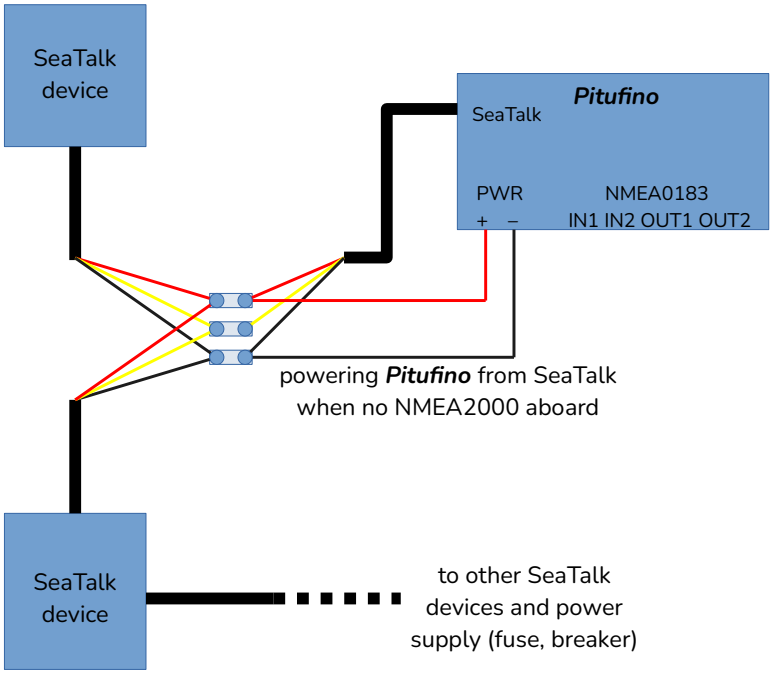
Tightly install the grommet with its inner nut in the housing. Leave the outer nut loose until the cable has been passed through and the housing has been closed again. Screw the housing back together and finally tighten the outer grommet nut.

Connecting to SeaTalk devices

SeaTalk1 is a communication bus that connects all its devices in parallel. It has three wires: +12Vdc supply (red), data (yellow) and ground (shield or black). Make sure all instruments are powered off before working on the wiring. Analyze your existing SeaTalk1 wiring, there might be already a junction box that connects several devices to the bus and you can simply connect the three wires (red, yellow, and black) from *Pitufino*'s SeaTalk module there.

If you have a spare cable with SeaTalk1 connectors and a free SeaTalk1 port (either on the backside of an instrument or on a dedicated port expander), you can use this cable and remove the SeaTalk1 connector on the other end (if any) and connect the three wires (or the two wires and the shield) with the three wires (red, yellow, and black) from *Pitufino*'s SeaTalk module using e.g. screw terminals in a small junction box.

If you do not find an existing junction box or if you do not have a spare cable with SeaTalk1 connectors or if you do not have a free SeaTalk1 port, you can cut an installed SeaTalk1 cable close to where *Pitufino* is mounted and use a small junction box there.



Powering *Pitufino*

Note, Pitufino must be powered on whenever the SeaTalk1 network is powered on! In most cases, *Pitufino* is powered by the NMEA2000 network. In this case it is recommended to use a single breaker for both NMEA2000 and SeaTalk1 devices. If there is no NMEA2000 network, *Pitufino* should be powered by the SeaTalk1 network (see image).

Connecting an external alarm

The white and green wires connect to a relay capable of switching up to 1 Amp.