

# MARKSETBOT SETUP GUIDE

Welcome to the MarkSetBot family! By using MarkSetBot, you're not only creating an easier world for your race committee and other race organizers, but you're helping to move race administration and sailing to a new, more efficient, environmentally friendly, and technological platform. But, perhaps most importantly, you've invested in a product and a company vested in growing sailing. So, please reach out to us at [support@marksetbot.com](mailto:support@marksetbot.com) or <https://marksetbot.zendesk.com> with any questions, concerns, or comments!

Hopefully by now you've received your Bot and all of the parts associated with it. This document, along with the [video series](#) will guide you through the process of setting up and activating your Bot!

## WHAT IS IN THE BOXES:

- 62" x 17" x 10" box
  - 1 Minn Kota Electric Trolling Motor
  - 1 Minn Kota propeller
  - 1 ProNav upper unit
  - 1 ProNav lower unit
  - 1 air pump
  - 4 aluminum poles
  - 1 kit containing
    - Lithium-ion battery charger
    - Patch kit
- 15.5" x 15.5" x 12" box
  - 1 Pelican Box
    - 1 smartphone - This is the "brain" of the Bot
    - 1 USB-C Charger
    - 1 lithium-ion battery
    - 2 'Y' connectors
- 24" x 18.75" x 13.75" box
  - 1 Hull with this attached
    - 1 deck (black)
    - 2 soft shackles for tow bridle
    - 1 tow bridle
    - 4 straps with female buckles for topside
- 24" x 18.75" x 13.75" box
  - Inflatable topside
    - 5 inflatable rings
    - 8 faspins with spectra and plastic washer

## Assembling and Using the Bot

Inflate the Hull (<https://youtu.be/Lv6wsbx0Ckc>)

- It is best if the Bots are assembled on a grassy area to minimize the likelihood of damaging the inflatable components
- Plug the pump electrical connector into the connector on top of your Pelican box. This will be via a waterproof connector
- Set the pump to 20 kPa
- Remove the cap on a Pontoon, verify the valve is set to closed, and press the button on the pump. Once the Pontoon is full (the pump will stop at its proper pressure if set correctly), remove the tube and replace the cap.
- Repeat this step with the other Pontoon
- Reset the pump's pressure to 40 kPa
- Remove the cap on a Deck, verify the valve is set to closed, and press the button on the pump. Once the Deck is full (the pump will stop at its proper pressure if set correctly), remove the tube and replace the cap.

Inflate the topside (<https://youtu.be/E1KjmRCA5z8>)

- Set the pump to 10 kPa
- Remove the cap on all 5 Rings, verify the valve is set to closed, and press the button on the pump. Once the Ring is full (the pump will stop at its proper pressure if set correctly), remove the tube and replace the cap.
- Arrange the rings so that all fill ports are aligned vertically
- Take one of the aluminum poles and slide it through each of the D rings on the inside of each Topside ring.
- Slide the plastic washer over the end of the aluminum pole above the D ring and fully insert the attached Faspin. Faspin should pass all the way through the aluminum pole
- Repeat for the other 3 poles
- Repeat for the other end of the pole

Attach the propeller to the Motor (<https://youtu.be/ljoQGvzk6wM>)

- Both the propeller and the Minn Kota Motor/shaft come in the Minn Kota box. Begin by removing them from the box and placing on a table.
- The propeller has a groove that will line up with the pin. Put the propeller onto the shaft and make sure it is seated on the pin.
- Put the stainless washer and nut on and tighten until snug. Be careful not to over-tighten. The prop should have about 1/8" ( $\approx 3\text{mm}$ ) of fore/aft movement when properly installed.
- **NOTE: Only the Minn Kota Riptide PowerDrive (white plastic) can be used in saltwater. After using the motor in saltwater, you need to remove the prop or let the motor sit in a bucket of freshwater for 5 minutes before stowing**

Attach the Minn Kota Motor to the deck: (<https://youtu.be/uTvk2ONJ-ok>)

- Upon arrival, the Motor and deck will be separate
- Remove the two Faspins holding the Motor to the wooden shipping frame
- Stand on the base of the shipping frame and slide the Motor up the tracks until it is completely clear of the shipping frame

- Identify the front of the hull (the side opposite of the fill ports)
- Slide the Motor onto the deck tracks so that the propeller hangs off the front of the Inflatable Hull
- Carefully line up the holes in the deck track with the holes on the Motor rail
- Install both Faspins being sure both are fully seated. Pivot them 180 degrees so they are locked in place by the Motor case

#### Verify and Install Spin Preventer Stop

- Verify pre-installed Spin Preventer is facing after relative to the Motor head and that a 4.5" gap exists between the bottom of the Motor head and the top of the Spin Preventer
- Attached to the Motor vertical shaft is a small ziplock bag. Remove the white Delrin piece and Faspin from the bag
- Place the Spin Preventer Stop onto the Deploy Assist Lever – it only fits one way
- Insert the Faspin making sure it is fully seated

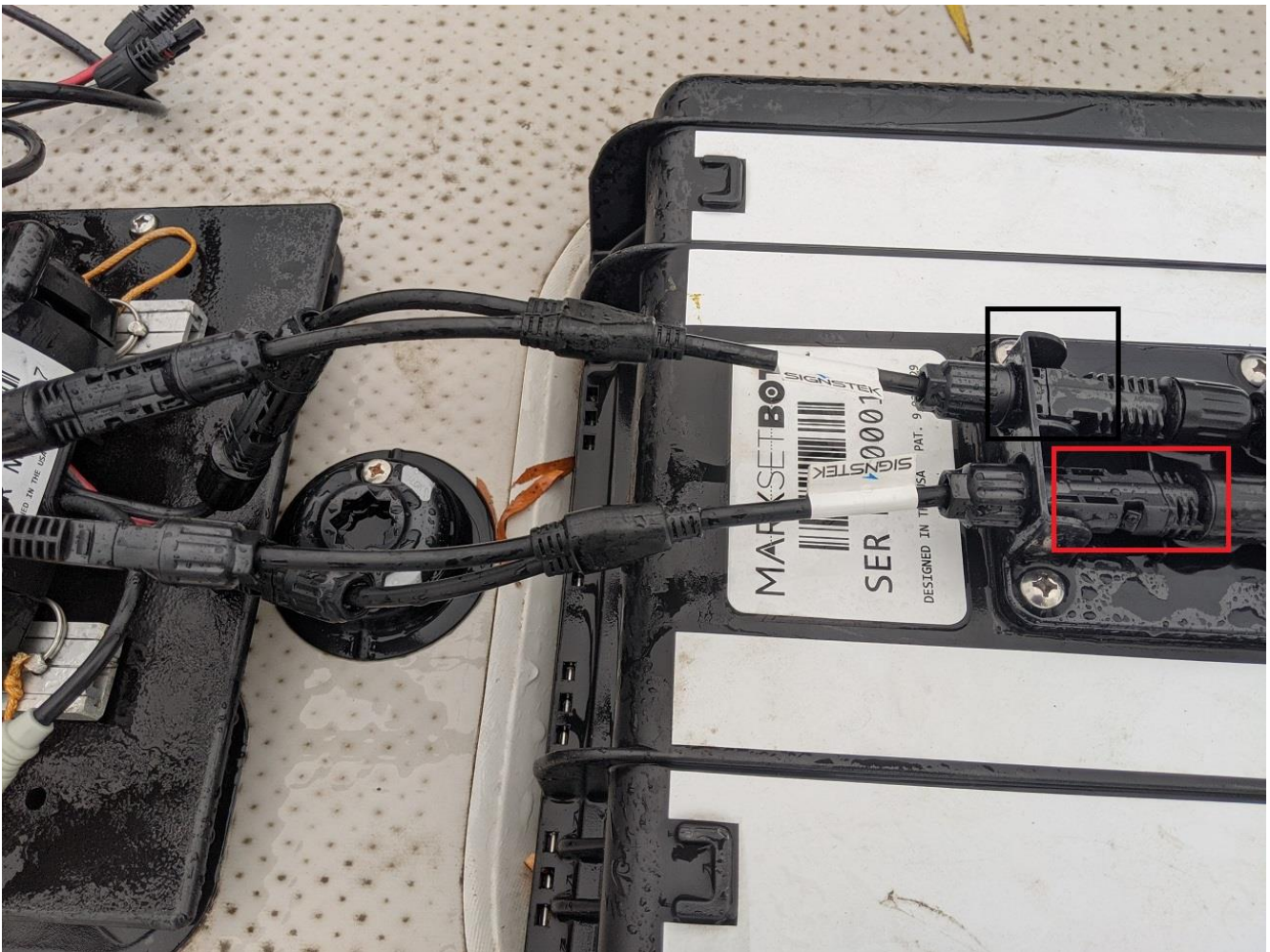


Configure electronics (<https://youtu.be/4EatBAOG3Vk>)

- The center of the electronics is the waterproof Pelican box. Inside you will find a lithium-ion battery, a cell phone “brain” with a SIM card, and a USB charger. The box has two waterproof connectors coming out of the top, one positive, one negative. It also has a lighted switch with an on and an off setting, and a waterproof charging port.
- Verify the box is closed and latched shut
- Set it in the Hull with the connectors facing the Motor and the On/Off switch facing aft. You will need to push down firmly to get it in to place
- The Motor and GPS are connected via “Y” connectors. The single end of each Y adapter goes to the Pelican box. The double connector goes to the Motor and GPS (normally this connection is in place when the Bot is shipped)
- Turn on the Pelican case by pressing or turning the power switch to the On position
- The battery in the box will now power the Phone, Motor, and ProNav
- Verify the Motor has power by pressing the Test button on the Motor display panel
- Look in the Motor Head View Port on the top of the Motor head and verify the light inside the head is illuminated
- The ProNav and Phone take around 60 seconds to boot up. Do not try to use it before then.



On/off switch







### Installing Topside

- Install 4 male buckles on the lower Ring
- If older gen topside that has aluminum poles, install 8 Faspins by luggage tagging them on to the upper and lower rings on the d-rings on the inside
- Double check each Topside ring fill cap is installed
- Verify the Motor is in the vertical stowed position
- Lift the Topside on to the Hull and position it so the entire deck and Motor assembly are covered by the Topside
- Orient the Topside so all fill ports are located at the aft end of the Bot (away from the Motor)
- Attach the Topside to the hull with the 4 sets of buckles.
- When carrying the Bot, be sure to use the handles on the Hull, not the Topside

### Putting the Bot away at the end of the day

- Be sure to press STOP in the app so the Motor will not try to engage
- Reach under the aft side of the Topside and Switch the Bot power switch to the Off position by pushing or turning the power switch. The brain will automatically shut itself off
- **NOTE: Only the Minn Kota Riptide PowerDrive (white plastic) can be used in saltwater. After using the motor in saltwater, you need to remove the prop or let the motor sit in a bucket of freshwater for 5 minutes before stowing**

- Plug the battery charger in to AC power or connect the solar panel
  - The battery charger will automatically turn off when the battery is fully charged
  - Take care to keep the charger out of water. A waterproof box for the battery charger is available from the MarkSetBot store
- Attach the battery charger via the waterproof charge port on the top of the Pelican box



## Disassembling the Bot

We believe it is best to leave the Bot assembled for ease of use, but if the Bot must be placed into storage repeat these steps for each Bot

Topside (<https://youtu.be/NTzgPQP5Jk8>)

- Unbuckle the Topside from the Hull
- Lift the Topside off the Hull and place on dry, flat ground – preferably grass
- Remove the Faspin from the top and bottom of each Aluminum pole
- Remove all 4 Aluminum poles
- Remove the caps on each Topside ring and press the valve to deflate the rings
- Once the air is out of each ring, fold the Topside in half making a Crescent and roll the Topside

Motor (<https://youtu.be/xl-rAJbfslo>)

- Remove the nut, washer, propeller, and small sheer pin
- Place the nut, washer, roll pin, and propeller in a ziplock bag
- Press the Deploy Assist Lever and lower the Motor lower unit until it touches the ground
- Press the Tilt Lock Lever located near the Motor Test Panel, rotate the Motor shaft to a horizontal orientation, push the Motor until it latches
- Disconnect the Y adapters from the Pelican case
- Remove the 2 Faspins and slide the complete Motor assembly off the Hull
- Slide the Motor onto the wooden shipping frame
- Align the holes in the track with the holes on the shipping frame and install the 2 Faspins

Hull (<https://youtu.be/GZBptpkfj7k>)

- Remove the caps and press the release valves to deflate the Deck and pontoons
- When all of the air has been removed from the hull fold the hull in half so that the opening for the Pelican case is under the Deck
- Take one Pontoon and fold it UNDER the Hull. Take the other Pontoon and fold it UNDER the Hull

Motor Spin Preventer Stop Removal (only necessary when mailing the Bot)

- Remove the Faspin holding the Spin Preventer Stop on to the Deploy Assist Lever
- Place the Stop and Faspin in a ziplock bag and attach to the vertical Motor shaft