

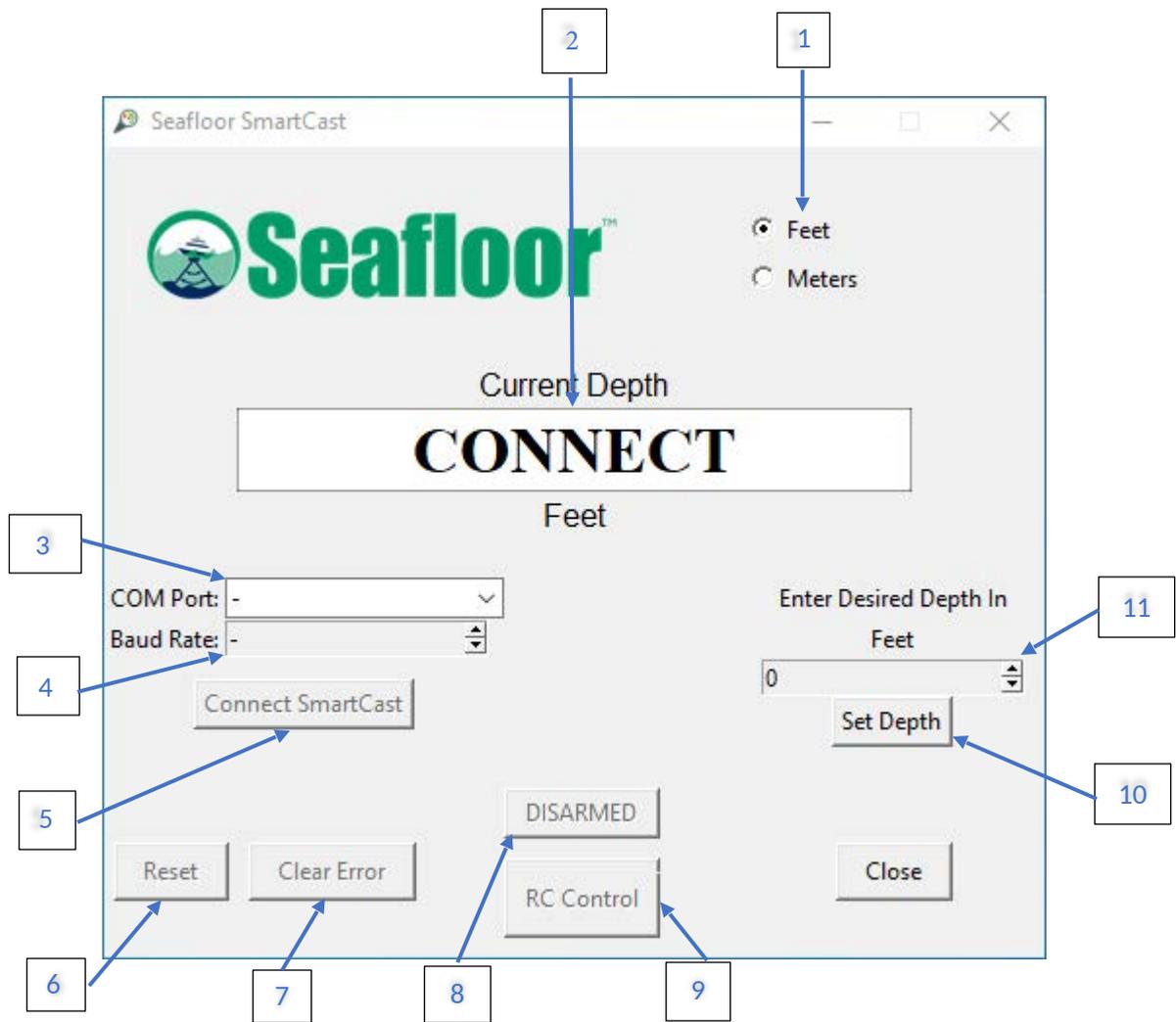
Seafloor[™]

SMARTCAST[™]

User Manual



Button Diagram



Button Labels

1	Units: Selects the units the system will use; feet or meters.
2	Screen: Displays the current position of the sensor.
3	COM Port: Used to choose the COM associated with the SmartCast.
4	Baud Rate: Used to select the baud rate between the app and the SmartCast. Automatically fills to 57600.
5	Connect SmartCast: Connects the application to the SmartCast hardware.
6	Reset: Used when the system is armed to bring the sensor to the mast and reset the current position shown on the screen to zero.
7	Clear Error: Used to clear the continuous error caused by the sensor getting stuck on something underwater.
8	ARM: Used to arm/disarm the device for automated casting.
9	RC Control/Cast: Displays "RC control" when the system is not armed and is used to send a cast when the system is armed.
10	Set Depth: Used to confirm the value set in Desired Depth (11).
11	Desired Depth: Arrows are used to choose a depth for the sensor to go to.

Setting up the SmartCast

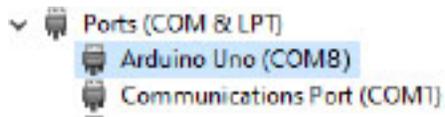
Step 1

Double click on the SmartCast icon on the desktop



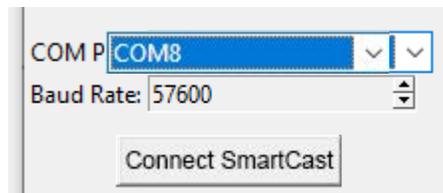
Step 2

If not known, find the COM port labeled "Arduino Uno". This can be done by typing "Device Manager" in the search bar in the bottom left corner of the screen. Once there find "Ports (COM & LPT)" such as the example below and record the COM port number (in this case COM8)



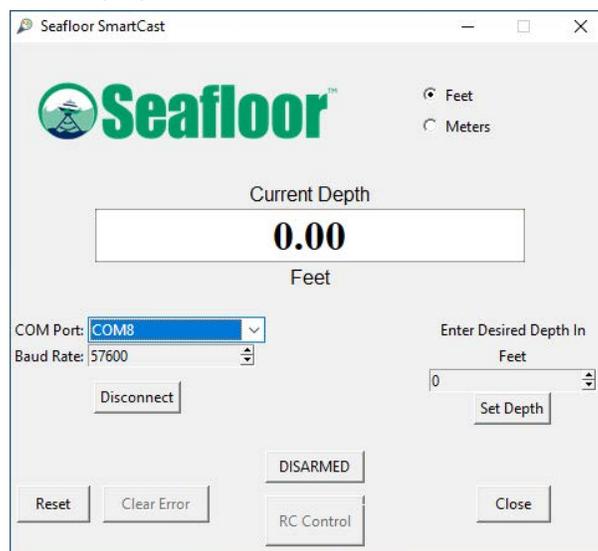
Step 3

Set the COM port from the drop-down menu and set the baud rate using the arrows, only the value 57600 is available.



Step 4

Click "Connect SmartCast", the display should look like the one below if everything was done right.



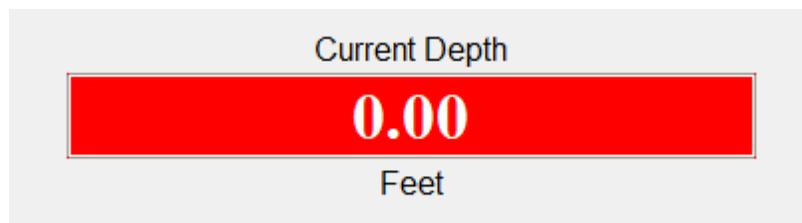
Casting with RC

Use the RC controller to drop the sensor to the desired depth, the current depth of the sensor can be read on the screen.



Be careful to not run the sensor into the ground as it can get stuck, the recommended maximum depth is 90% the distance to the bottom of the body of water.

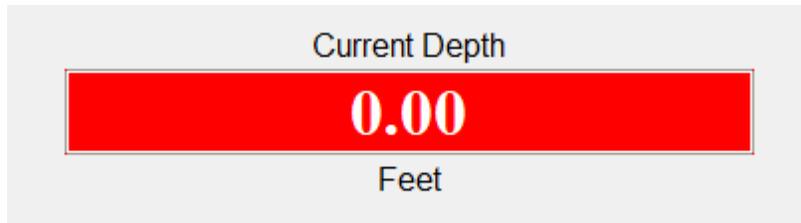
If the sensor is at the home position but the on-screen display shows something different than 0.00, the device can be armed to reset that value to 0.00 for more accurate and measurable casts. The system can be disarmed by again clicking on the arming button.



Making an Automated Cast

Step 1

Arm the device by pressing the DISARMED button, the system will run the motor up to the home position and reset the position value at that point to 0.

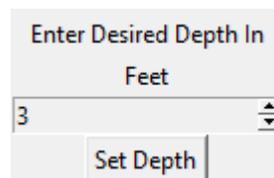


Step 2

Choose whether the cast will be set in feet or meters.

Step 3

Choose the depth the sensor will be cast to and confirm the value by clicking the "Set Depth" button.



Step 4

Click the "CAST" button to begin the cast.

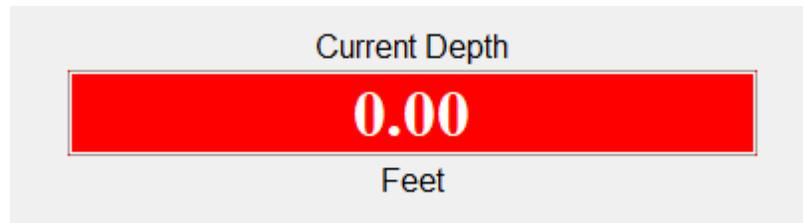


Once the cast has begun the system will again reset the "Current Depth" to zero. Next it will descend to the desired depth, pause for two seconds, and then come back up and reset "Current Depth" a third time. After this the system will disarm itself.

If the sensor hits the bottom of the body of water before the desired depth is reached the cast will stop prematurely and return to the home position.

Stuck Underwater

If the system cannot pull the sensor up out of the water it will go into a continuous error, stopping casts from being made but still allowing RC control and motor control.



Use a combination of RC control and maneuvering the boat to try and free the sensor. Once the sensor is free the "Clear Error" button can be used to clear the continuous error and allow the system to be armed again.

Important Tips

1

-Do not run the QuickCast while the boat is moving quickly, or in a heavy current.

2

-If a depth is set but the “set depth” button is not set, when the cast button is clicked the last cast value will be used. A new depth does not need to be set if the same depth is desired.

3

-It would be good practice to unspool and respool the line before every mission to ensure the line does not become tangled. Tangled lines can result in the direction of motion to be reversed or large amounts of line being released at once, both of which can stop the SmartCast from functioning properly.

User Flow Chart

