

A full-page background image showing a sunset over the ocean. The sky is filled with orange and yellow clouds, and the sun is low on the horizon. In the foreground, several surfers are visible in the water, waiting for waves. A wave is breaking in the lower part of the image.

smartfin

User Guide 2017

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INTRODUCTION

Welcome to the Smartfin community! With your help and the help of other citizen scientists around the world, we are collecting oceanographic data to help researchers and our communities better understand trends in ocean health caused by climate change.

The ocean acts as a buffer to changes in the Earth's atmosphere, absorbing heat and gasses, like carbon dioxide. Since the industrial revolution, the ocean has absorbed 90% of the excess heat from global warming and over 25% of the excess carbon dioxide. As a result, the ocean is getting warmer and more acidic, which can negatively impact the species that live there as well as the communities that live along or near the coast.

Smartfin is a partnership that brings together the research community, non-profits, and citizen scientists to study and learn about these changes to ocean health, and provides tools to empower and engage Smartfin communities to become leaders on ocean health awareness, advocacy, and action.

Thank you for joining the Smartfin community and being part of a brighter future!



SETTING UP YOUR SMARTFIN

Now that you have your Smartfin, there are just a couple more steps you need to do before you can start collecting data. Follow the steps below and if you have any questions, check out the “Contact Support” section at the end of this guide.

a. Install Your Smartfin in a Futures Fin Box:

Futures fin boxes only use one fin screw. Use the fin key provided to loosen the screw out of screw hole. Once the fin screw is loose, place the back-end of the fin into fin box first.

Once back-end of the fin is securely in, press on the front-end to have it slide into the fin box. Then use your fin key to screw the fin screw back into the hole to secure it in place.



b. Download The Smartfin App

After receiving a Smartfin, you'll get an email inviting you to download the Smartfin app.

iPhone:

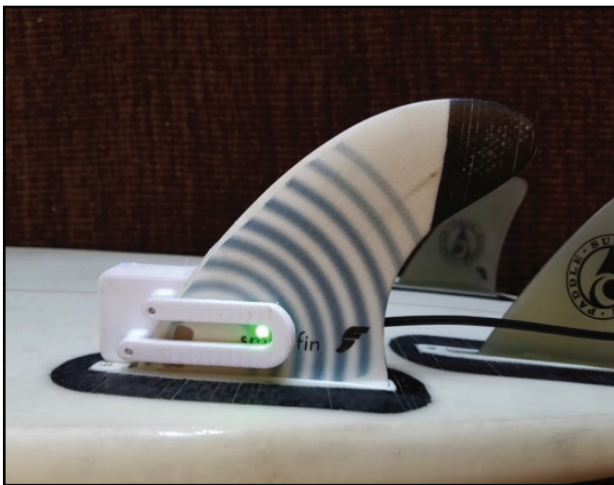
iPhone Users will receive an email invitation from TestFlight. Follow the instructions in the email to download TestFlight from the Apple Store. Then open TestFlight to download the Smartfin app.

Android:

Android Users will receive an email with the Smartfin app attached. Open the Smartfin app attachment within your email system on your phone and follow the prompts to save the Smartfin app to your phone.

c. Charge Your Smartfin

Plan on charging for 2 hours before you surf your first session. Clip charger to the front of the fin. The clip should be on the Smartfin logo side of the fin, and the bottom of the charger should rest against the surfboard or, be aligned with the top of the fin's base if the fin is not in a surfboard.



Press the start button on the charger. The charger will flash blue and red, then stay blue if properly aligned. The LED on the fin will turn from Red to Green when the fin is ready to surf, and the green LED will turn off when the fin is fully charged. The fin will hold its charge without use for one week.

d. Swipe to Surf

Then place provided magnet on the “a” of the “Smartfin” logo and swipe straight up vertically. This will start a series of LED blinks, when the light is flashing green the fin is recording and has GPS lock. If you do not see the LED blinks wait five seconds and try again. Once the LED is flashing green the fin is ready.



Note

Wait at least one minute after removing charger from fin before swiping
Any strong magnet will work in the correct orientation.

d2. Surf!

Now go surf and collect data!



e. Charge to End Recording and Prepare to Upload

When you exit the water the fin's LED may either be blinking green or off depending on the length of the session. After surfing place charger on the Smartfin.

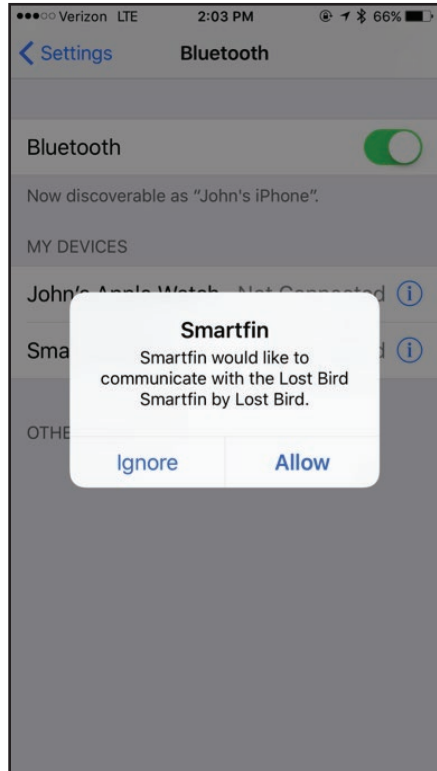
Press the button on the charger, and charger will flash blue and red and then stay blue if properly aligned. Once LED on fin illuminates any color, (red, green, blue) fin is ready to download information.



Note

Only magnet swipe to start fin, magnet swiping while recording will create an error.

e2. Uploading to Research Cloud



On iPhone

Step 1: Connect

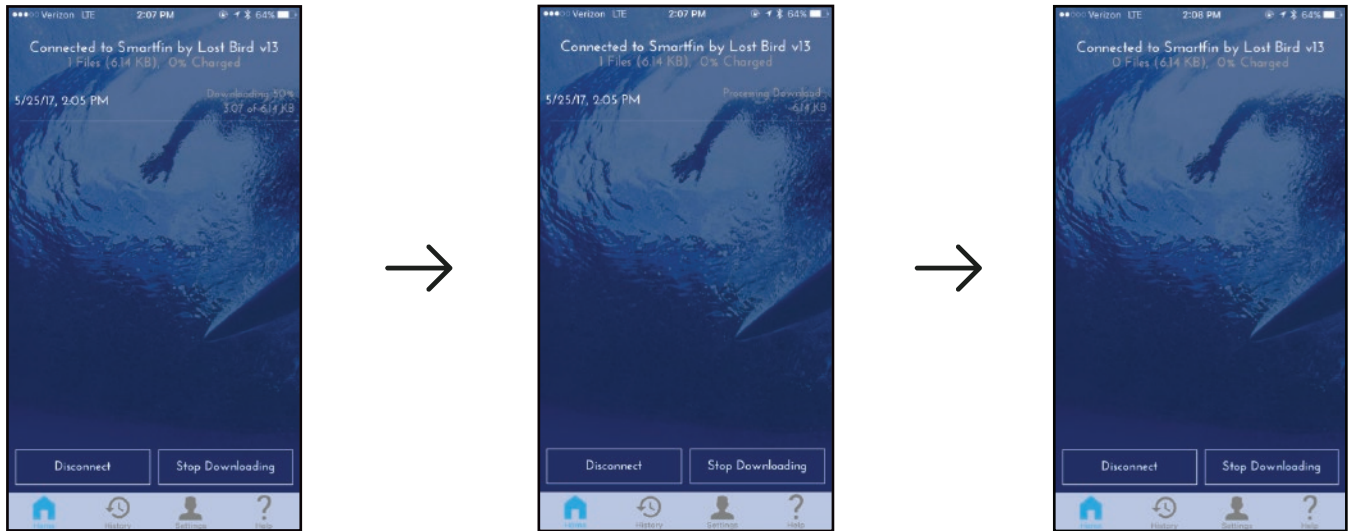
Open your Settings app (gear icon on your iPhone), then click on Bluetooth and toggle slider on. Use the SN# on your Smartfin to identify your fin and select it to connect. The LED light on your Smartfin will turn blue, indicating it's connected.

Follow the prompts and allow the request to connect with the Lost Bird App opening the Smartfin App. This will allow you to download your rides from your fin.

Alternatively, after connecting to your Smartfin on Bluetooth, close out your Settings app and open your Smartfin app. You will already be connected to your Smartfin, as indicated at the top of your screen.

Step 2: Download/Upload

Click “Download All Rides.” The Rides should then go through a download, upload, processing stage until the rides say “On Web” or leaves your screen.



Note

If all rides fail to download and upload successfully close the app by double clicking the home button and sliding the Smartfin App up to fully close it. Disconnect device by clicking on “Settings” (gear) icon, selecting “Bluetooth”, then selecting your Smartfin and clicking “Disconnect”. Then restart by repeating Step 1: Connect. Then try to download/upload again.

Once you’ve downloaded/uploaded all your rides, click “Disconnect”. If the LED light on your fin is still blue, that means your fin is still connected. Close the Smartfin app by double clicking the home button and sliding the Smartfin App up to fully close it. Disconnect device by clicking on “Settings” (gear) icon, selecting “Bluetooth”, then selecting your Smartfin and clicking “Disconnect”.

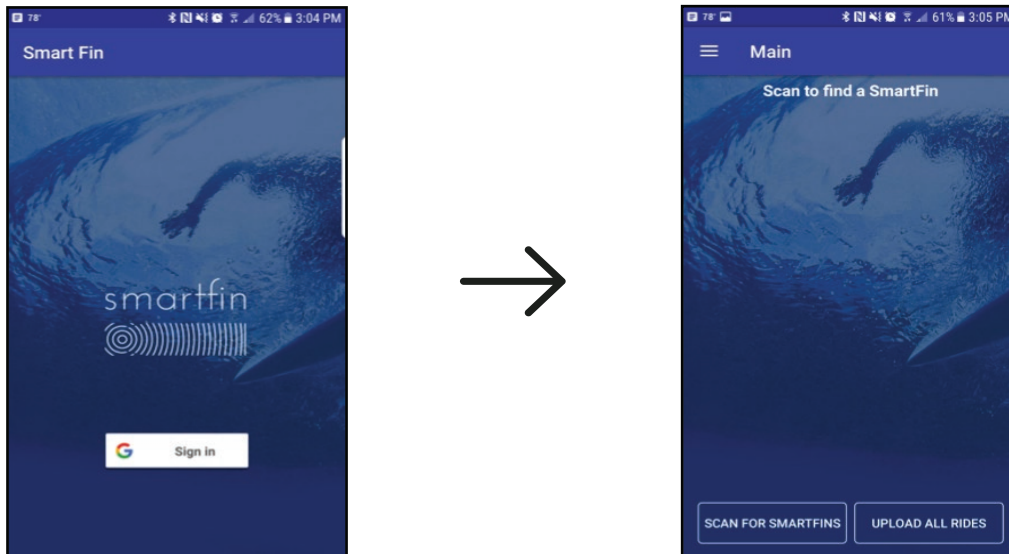
Leave connected to charger: Charge for your next surf.

On Android

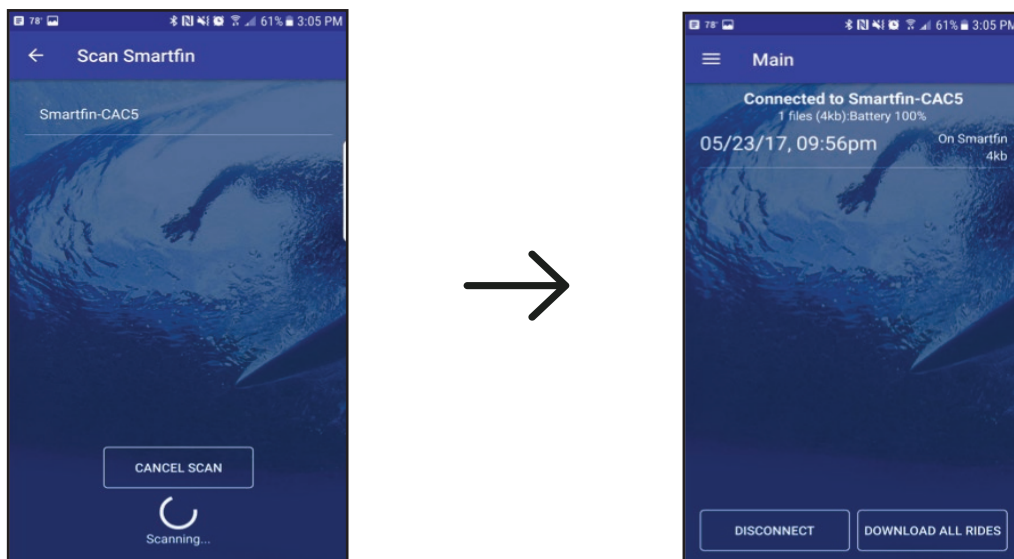
Step 1: Connect

Navigate to Smartfin APP, open and sign in with google. Allow app access.

Click "Scan for Smartfins" at bottom of screen

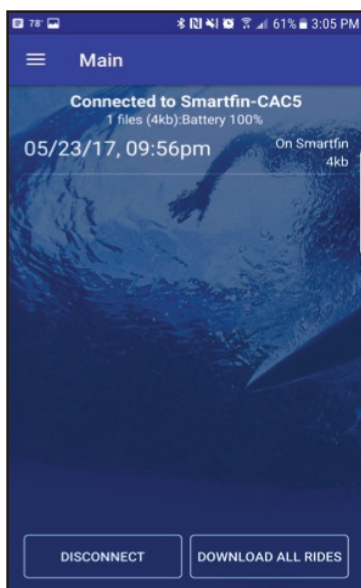


After Smartfin appears at top of screen, wait 10 seconds, and then click.
Once connected the screen will display your rides and their sizes.



Step 2: Download/Upload

Select “Download All Rides,” all the rides will download, upload, and then disappear from phone. You may not see each step depending on the file size.



Note

If all rides fail to download and upload successfully close the app by clicking on the double box icon and force closing the app. Then restart by repeating Step 1: Connect. Then try to download/upload again.

**Leave connected to charger:
Charge for your next surf.**

VIEWING YOUR RIDE

On iPhone

Open your Smartfin app. At the bottom of your screen, click on “History”. Your recently uploaded rides will appear here. Click on any one of them to view each individual ride. The information will display in a new window.

On Android

Open your Smartfin app. Click the menu Icon in the top left corner and select “History.” Your recently uploaded rides will appear here. Click on any one of them to view each individual ride. Your location and temperature information will display in a new window.


On Your Computer

Connect to the website surf.smartfin.org.

Choose to login with either a "Google Login" or "Facebook Login."

Once logged in, you will be able to see all you rides:

smartfin




My Rides


Search

kat

My Rides

Search



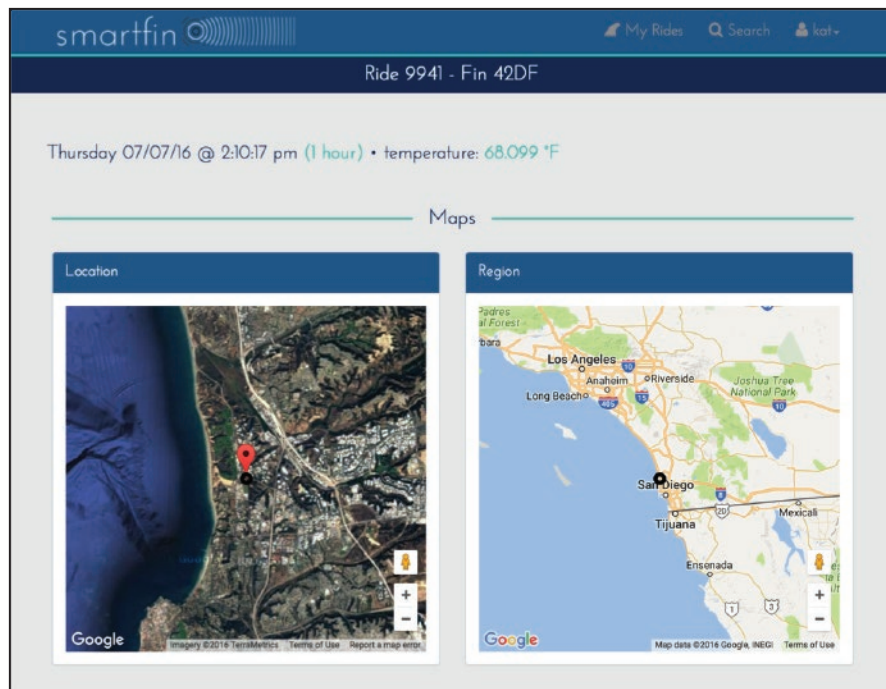


Ride Number	Date/Time	Duration	pH	Temp	Salinity
9941	Thursday 07/07/16 @ 2:10:17 pm	1 hour		68.099 °F	
9940	Thursday 07/07/16 @ 2:11:31 pm	1 hour		68.021 °F	
9939	Friday 07/01/16 @ 8:09:25 pm	3 hours		79.559 °F	
9938	Wednesday 07/06/16 @ 7:36:24 am	2 hours		75.336 °F	

Move your mouse over the ride number to open the ride file.

9941	Thursday 07/07/16 @ 2:10:17 pm	1 hour		68.099 °F	
9940	Thursday 07/07/16 @ 2:11:31 pm	1 hour		68.021 °F	

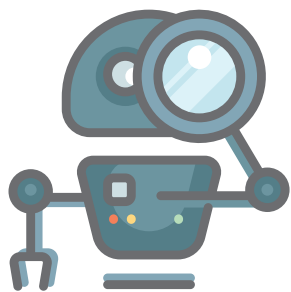
When you select a ride, the information from that ride will be displayed.



The files under "Data" at the bottom of the page are raw data files shown in .csv or .json format. To download ocean temperature data click on the .csv file.



TROUBLESHOOTING TIPS



Issue:

My app won't connect to my Smartfin.

Solution:

On iPhone, open your "Settings" (gear icon) and click on "Bluetooth". Identify your Smartfin's unique ID number on your Smartfin and select that Smartfin from the list of Bluetooth devices. Click "Forget This Device." Now try re-connecting.

On Android, pull down phone's menu from the top of your phone and turn off bluetooth. Push and hold bluetooth, then select Smartfin (gear logo) and then click "unpair."

CONTACT SUPPORT

If you encounter any issues while using your Smartfin, please contact support at help@smartfin.org or visit <http://www.surfrider.org/programs/smartfin> and click on the "Resources" tab to watch Demo Videos.

Thank you for your contribution to science and also your patience as we work towards a better world one ride at a time!

