

CAROLINA MOUNTAIN CLUB
Guide to Gaia GPS Hiking Basics¹

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This brief guide covers Gaia GPS basics for following, recording, saving, importing, and exporting tracks. Gaia has many more features than described here. The best way to learn about them is to review the Help files on both the Gaia app and the website help.gaiagps.com, experiment at home, and use the app when you hike.

These instructions are for Apple devices – iPhones, iPads, and Mac computers. Instructions for Android devices and PCs may vary somewhat.

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I. Introduction to Gaia

The website for Gaia is gaiagps.com. The app is available for all smartphones. You can sign up for the free app, get the Membership version for \$17 annually, or get the Premium version for \$36 annually. The free version lets you explore thousands of trails with features, profiles, ratings, photos, maps, directions to the trailhead, and downloadable .gpx files. The Membership version does all of that – plus allowing you to print maps and download them for offline use. The Premium version adds weather and conditions, many more map overlays, and specialty maps for Europe, Asia, and Australia.

On the trail, I'm happy with the free Gaia app. But for home use – searching, printing, modifying, and creating new hikes – I prefer AllTrails (described in a separate Guide on the CMC Public website under Hiking / Resources). On-trail, however, AllTrails has two disadvantages: It drains the battery and it doesn't display accurate real-time statistics for ascent and descent. That's why, until early 2020, I used MotionX-GPS as a second app to follow and record tracks. But MotionX is no longer supported by the developer. So, I reviewed a variety of apps and selected Gaia to replace Motion-X.

The more I use Gaia, the more I like it. In fact, it's superior to MotionX in a number of significant respects – including less battery use, clearer maps, a large library of hikes, download-able tracks, ease-of-use, and better documentation.

To get started, download and install the Gaia smartphone app. Establish your Gaia account so you can login to both the app and gaiagps.com. Then touch "Settings" in the lower right corner of the app. Under "Account," I would enable "Sync/Backup," which will ensure that your saved tracks will automatically sync between the app and the Gaia website. Under "Map Controls," I would disable "Allow Rotation," disable "Compass" (because it will use more battery), and enable "Stats Bar."

II. The Map screen

A. Understanding the Map display

Touch "Map" in the lower left corner of the main Gaia screen. Spread two fingers to expand the map; pinch to contract. The following icons will appear left-to-right at the top of the screen: **(1) Search.** Find hikes in the Gaia database (for more detail, touch the circled "i" when the map appears). **(2) Full screen.** Press to eliminate the top row of the display. Long press to show Map Display Options. **(3) Location.** Tap the crosshairs to show your current location. If the icon is a red circle, the map will remain centered on your location. If the icon is a green arrow, the map will rotate so your travel direction is always up. **(4) Plus (+) icon.** Offers several features, three of which – record a track, create a route, and importing – are discussed below. **(5) Map layers.** Offers overlay options and three map sources, but Gaia Topo is the only one available to free app users.

B. Using the Stats bar

Long press on any of the white rectangles just below the top row of icons. Use the three scroll bars to select the statistics that will appear in each of the three rectangles. If you’re going to record a hike, one of the three rectangles should contain the Record button. (My three choices are Record, Distance, and Ascent.) Tap any of the white rectangles to collapse the list.

III. Using Gaia on a hike

When using Gaia on a hike, you can save battery life by running on Airplane mode, closing other apps, and reducing brightness.

A. Displaying your track

Touch “Saved” at the bottom of the main screen. (Saving hikes will be covered on pages 3 and 4 below.) Touch the left arrow at the top of the screen until it’s replaced by “All.” Touch the name of a saved hike until you see a map, then touch the map (more than once if necessary) until you see “Show on Main Map.” Touch that option.

B. Following, recording, and saving a track

Once you have displayed your hike on the Map – or if you’re using the map without a saved hike – press the Location icon at the top center (see page 2 above). The orange arrow will then follow your location as you hike. If you want to record the hike, touch the green Record button at the top. If you don’t see a Record button, touch the plus (+) icon at the top right, and then touch “Record a Track.” The timer will start, indicating that you are actively recording. (You can also start recording by touching “Trip” at the bottom of the main screen, then touching the green “Record” button.)

To pause the recording, tap the timer and select “Pause Recording.” When you’re ready, tap the timer again and select “Resume Recording.” To delete the recording, tap the timer and select “Delete Track.”

To save the recording, tap the timer and select “Finish Track.” You can then edit the name of your hike, choose an activity (e.g., “Hiking & Backpacking”), and touch “Save.” You can even resume a finished track: Select the track from your “Saved” list, tap the three dots in the upper right corner and select “Resume Recording.” If you later want to delete a track, find it in your “Saved” list, swipe left on its name, and touch “Delete.”

C. Creating a route

The “Create Route” function will enable you to determine the length and elevation for a segment of, or potential addition to, your hike.

From the Map display, long-press where you’d like your route to start. You’ll see a blue dot and the display title will change to “Create Route.” At the bottom left, touch the “Mode” icon. Select “Hiking” if you want to create a route automatically along established trail segments. Select “Straight Line” if you want to manually plot the route (or if you find that your connectivity isn’t adequate to use “Hiking” mode).

Expand the map as necessary, and then tap and hold anywhere on the screen to plot your next point. In “Hiking” mode, the points should be connected along an existing trail. In “Straight Line” mode, the points will be connected linearly. If you want to delete a point, tap and hold until you see an edit (pencil) icon. Touch the icon and then “Delete.”

The distance of each segment of your route will be displayed on the map. The total distance, ascent and descent of your route will appear at the bottom of the screen, along with an elevation profile. Slide your finger across the profile to see the corresponding location along your route.

To cancel a route, tap “Cancel” at the top left. Otherwise, when you’re finished, tap “Save” at the top-right of the screen, edit your route name, and then tap “Save” again. Note: If you view the statistics for your saved route (see Part IV-B below), you’ll find that ascent and descent have been recalculated more accurately.

Gaia’s “Create Route” function is even easier to use on your computer at GaiaGPS.com. It’s not quite as flexible as the AllTrails feature, and the only way to print the Gaia trail map is by taking a screen shot. Still, Gaia includes all of that with its free version, whereas AllTrails Pro is \$30 per year. So, here’s the takeaway: If you’re comfortable with Gaia’s somewhat-less-flexible capability to modify and print trails, and you’re ok with a smaller library of search-able hikes, then Gaia’s free version is all you need.

IV. Your hike statistics

A. Viewing your statistics when recording a hike

Touch “Trip” at the bottom of the main screen. To adjust the order of the stats, double-tap anywhere in the list, and then use the parallel lines beside any stat to drag it to a different position in this list. Once you have adjusted the order, it will remain in that order unless and until you want it changed.

B. Viewing your statistics for a saved hike

Touch “Saved” at the bottom of the main screen. (Saving recorded hikes is covered on page 3 above. Saving imported hikes will be covered in Part V below.) Touch the left arrow at the top of the screen until it’s replaced by “All.” Touch the name of a saved hike until you see a map, then touch the map and you’ll see a rectangle with Distance, Total Time, and Ascent. Touch the arrow to the right of Ascent. (Note: If the track was imported from another source, statistics may not be available.)

V. Importing and saving .gpx files to your Gaia app

A. Importing from the Gaia library

Touch “Discover” at the bottom of the main screen. Then, at the top of the screen, you can either “Filter” nearby hikes by difficulty, length, and elevation gain; or enter the name of any hike. If you get multiple selections, touch the one you want to import, then touch the down arrow in the upper right corner until it turns green, and finally touch

“No Map.” You can access the downloaded track by touching “Saved” at the bottom of the main screen.

B. Importing a file stored on your computer

Login to gaiagps.com. Click the down arrow next to your login name in the upper right corner. Click on “Upload.” Assign a name for the track to be imported and click on “Select a file.” Find your file in the window that opens, choose the file, and click on “Upload.” Then click again on the down arrow next to your login name in the upper right corner. Click on “Tracks” and you’ll see the imported file as a saved track, which will automatically sync with the Gaia app on your smartphone. If you want to force an immediate sync, touch “Settings” in the lower right corner of your app and then touch “Last Sync.”

C. Using AirDrop (Apple only) (“Nearby Sharing” is the Android equivalent)

On your iPhone(s) and/or iPad(s), touch “Settings,” “General,” “AirDrop,” and “Everyone.” If you’re exporting to a Mac, open a Finder window, click on “Go,” “AirDrop,” and “Everyone.” For AirDrop to work, the devices must be physically close to one another.

Find the file on your Mac and right click. Highlight “Share ►”; then click “AirDrop,” select your iPhone as the recipient, and click “Done.” On your phone, select “Gaia.” You can access the track by touching “Saved” at the bottom of the Gaia main screen.

D. Using Dropbox

If you have Dropbox installed on your computer and smartphone: Add the .gpx file to your Dropbox folder. Find the filename using your Dropbox app on your smartphone. Then touch the three dots adjacent to the filename and select “Export.” Swipe the choices to the left and tap “Copy to Gaia GPS.” To access the track in the Gaia app, touch “Saved” at the bottom of the main screen.

E. Using Mail.app or a text message

Email or text a .gpx file to yourself as an attachment (or have someone else do so). Use Mail.app on your iPhone to open the email or use iMessage to open the text. Tap the attachment and touch the Share icon (a square with an up arrow) at the bottom of the screen. (If you don’t see the Share icon, try a long press on the attachment.) Then choose "Open in Gaia GPS" or "Copy to Gaia GPS." You may have to swipe left and select "More ..." to see one of those choices. You can access the track by touching “Saved” at the bottom of the Gaia app main screen.

VI. Exporting .gpx files from Gaia

A. Using Dropbox (not available for hikes from the Gaia library)

If you have Dropbox installed on your computer and smartphone: Touch “Saved” at the bottom of the main screen of your Gaia app. Tap the track to be exported. Then touch the three dots in the upper right corner. Select “Export” and “GPX” as the file type.

Swipe left and select “Copy to Dropbox.” You may have to select "More ..." to see that choice. Then select a subfolder name and “Save” in the upper right corner. You may want to edit the track name in Dropbox.

B. Using iCloud Drive (not available for hikes from the Gaia library)

Touch “Saved” at the bottom of the main screen of your Gaia app. Tap the track to be exported. Then touch the three dots in the upper right corner and select “Export.” Tap “GPX” as the file type. Tap “Save to Files,” “iCloud Drive,” a subfolder if applicable, and “Save” in the upper right corner.

On your computer, login to iCloud.com, click on “iCloud Drive,” and double-click the subfolder if applicable. Then click on the file name and the cloud icon with a down arrow at the top center of your screen. The file will appear in the Downloads folder of your hard drive.

C. Using AirDrop (Apple only) (“Nearby Sharing” is the Android equivalent)

On the exporting iPhone, touch “Saved” at the bottom of the main screen and tap the track to be exported. Then touch the three dots in the upper right corner and select either “Export” or “Share” (whichever one you see).

If you selected “Export,” tap “GPX” as the file type and then touch the “AirDrop” icon. Select your recipient(s) from the list of devices. Then tap “Done.”

If you selected “Share,” you will not be able to choose an iPhone or iPad as recipient. Touch the “AirDrop” icon, select a Mac computer as recipient, and tap “Done.” Then, on your Mac, a map of the hike will appear. Under the map, click the down arrow next to “GPX/KML” and choose GPX.

If the recipient is using a Mac, the file will appear in the computer’s Downloads folder. If the recipient is using an iPhone or iPad, he/she will be asked to “Accept” the file; then specify “Gaia GPS.” The file can then be accessed by touching “Saved” at the bottom of the main screen on the recipient’s Gaia GPS app.

D. Using the gaiagps.com website

Login to the gaiagps.com website. Force an immediate sync by touching “Settings” in the lower right corner of the Gaia app, and then “Last Sync.” On the website, click the down arrow next to your login name in the upper right corner. Then click either: (1) “Tracks,” the name of the track to be exported, “Data” next to the down arrow, and “GPX”; or (2) “Hikes,” the name of the hike to be exported, the down arrow under the map next to “GPX/KML,” and “GPX.” The downloaded .gpx file will appear in your Downloads folder.

Happy hiking!

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