

# Resources At Your Fingertips

## Part I: Avenza Maps

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# What is Avenza Maps?

Avenza Maps allows for offline, map use. Users can view maps on their phone or other apple/android device without cellular service or data usage.

Avenza Maps uses your device's GPS location to show, in real time, where you are located on your map.

In this slideshow, we will cover ways we can use Avenza Maps in our own woodlots. Our PowerPoint will not cover all aspects of the app, just the basics!



# How Avenza Maps Can Help With Woodland Management

- Mark features such as legacy trees, rock outcrops, structures, and springs with waypoints. This allows users to revisit the features later or share with friends/family.
- Create tracks of existing trails or ones you wish to create.
- Follow your boundary to have it 'tracked' on your map.
- Use the measure tool to calculate distance, acres, etc...
- See in real time (blue dot) where you are located on your map. The blue dot will follow you as you move around your woodland.
- Navigate to marked features and trails.
- Obtain coordinates for places and features



# Maps

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Maps may be obtained through the Avenza Map Store or from other map publishers. Maps should be geospatial PDFs.

Shoreland Area maps for Statewide Standard towns are available for download by following the link below. Becoming familiar with the shoreland areas on your property will be helpful when planning any forestry activities. These are also a great, free 'starter map' that you can use for practice.

[https://www.maine.gov/dacf/mfs/policy\\_management/water\\_resources/sws/sws\\_maps.html](https://www.maine.gov/dacf/mfs/policy_management/water_resources/sws/sws_maps.html)

These maps are ADVISORY, for planning purposes only. Actual ground conditions, water body locations, and current regulations determine where and how MFS timber harvesting rules apply. Be familiar with ALL rules that apply to your activity BEFORE you begin your activities.

These maps only apply to timber harvesting and related activities in shoreland areas - for all other land uses you must consult the shoreland zoning map at the town office.

# Avenza Maps Store

The app store has maps available for free and for purchase. When you download maps from the app store, they will go directly to your Avenza Maps app- 'My Maps.'

Keep an eye on the map size and be familiar with how much storage your device has available.



## Brooks West, ME (2021, 24000-Scale)

By [United States Geological Survey](#)

Topographic

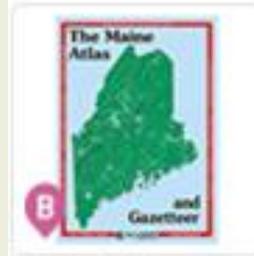
Published 2021

Size: 3.8 MB

Full details

Zoom to map

Free



## Maine Atlas & Gazetteer

By [Garmin](#)

Parks & Forests

Hiking, Offroading, Hunting, Camping, Cycling

Published 2019

1000+ Downloads

Size: 895.0 MB

Full details

Zoom to map

US\$19.99



## Maine Atlas & Gazetteer Map 22

By [Garmin](#)

Parks & Forests

Hiking, Offroading, Hunting, Camping, Cycling

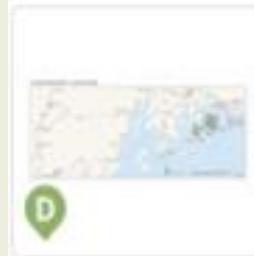
Published 2019

Size: 13.8 MB

Full details

Zoom to map

US\$0.99



## Acadia National Park Local Area Map

By [Avenza Systems Inc.](#)

Parks & Forests

Hiking

500+ Downloads

Size: 1.4 MB

Full details

Zoom to map

Free

# Importing & Managing Maps

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The below urls will direct you to a YouTube video that explains how to add and organize maps from places **other than the Avenza App Store**.

Urls for iOS & Android.

iOS



<https://youtu.be/UAHXcNkJIM>

Android



<https://youtu.be/cA8IGbMzanU>

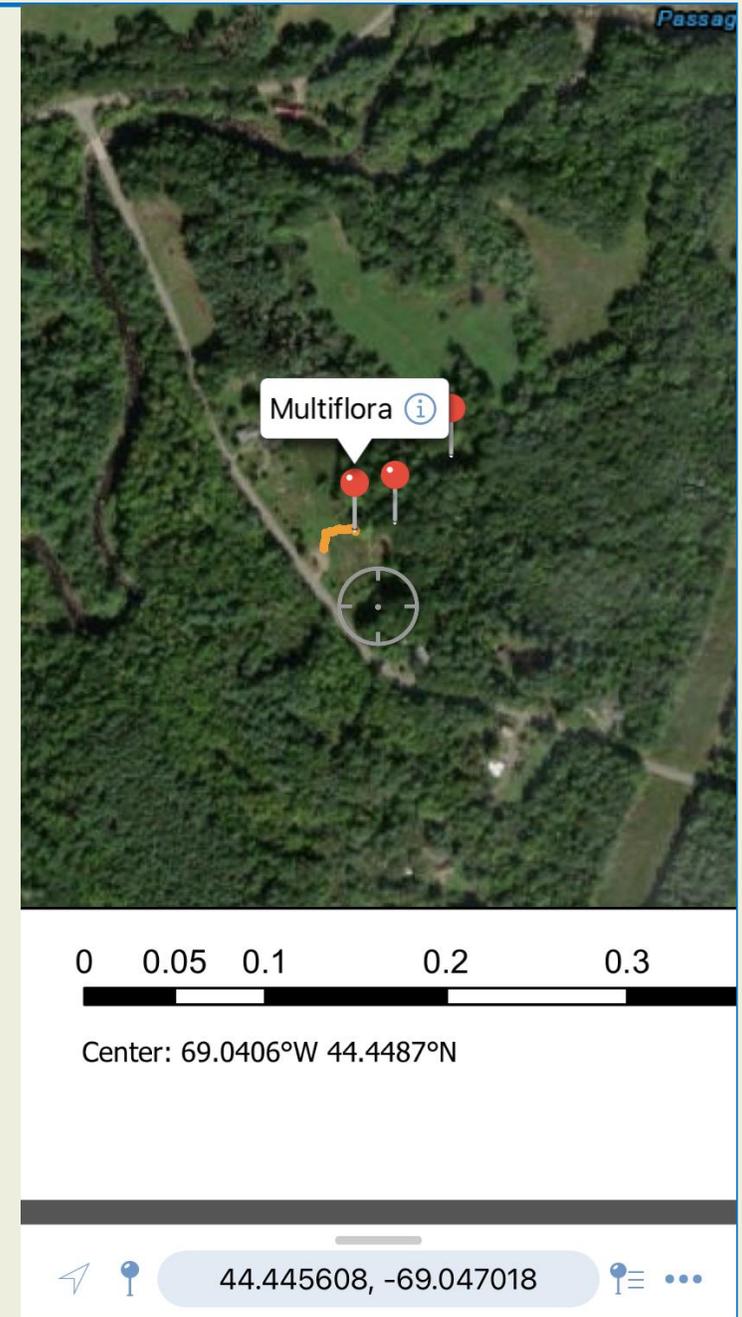
# Creating/Using Waypoints

To mark a waypoint, you will first tap on the map you wish to use in your, 'My Maps' page. Let's pick a map that includes your woodlot, home, or nearby location you are familiar with. For this example, I will use Head of Tide Preserve, Belfast.

You can see that three waypoints have already been marked and labeled. And a track (orange) is present.

To place a new waypoint, we move the center point of the crosshair over the spot we wish to mark. If you are dropping a waypoint on your current location, line the bullseye up with your large blue dot. Tapping the small arrow in the bottom left corner of the screen will cause the crosshair to automatically follow your position on the map.

For our example, I will be dropping a yellow marker/waypoint at the center of Old Cemetery, just outside of the preserve and labeling it *OC*.



# Creating/Using Waypoints

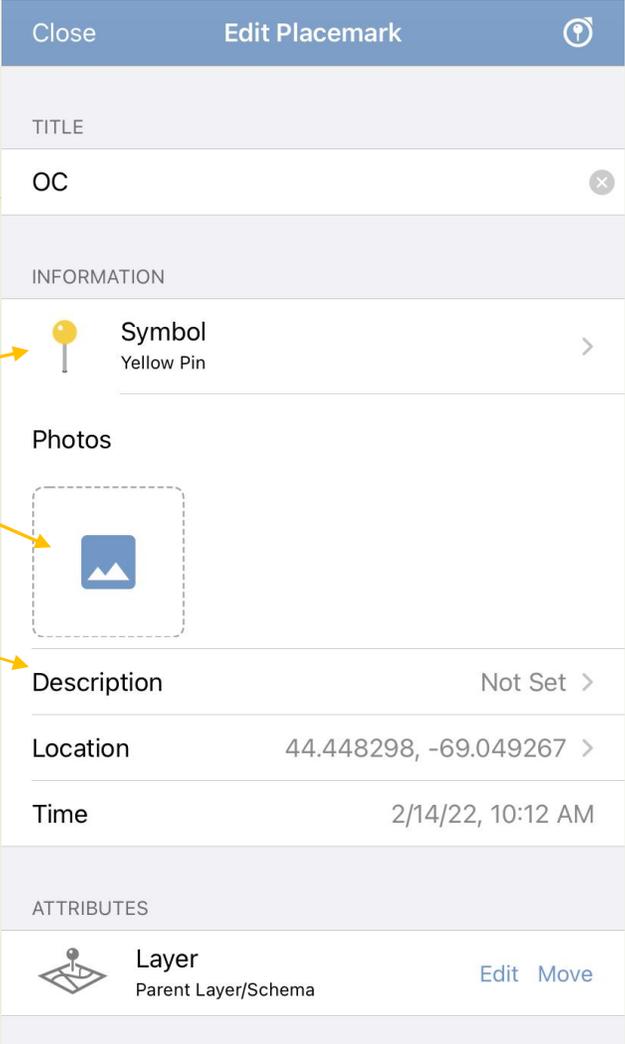
You can see that we've lined up our crosshair to the cemetery center.

Now, we select the 'pin' in the lower left-hand side of the screen.



You will be directed to a page that allows for a title to be created (OC), a symbol change (yellow), a photo to be added, and you may choose to add a description.

The location coordinates, date/time, and layer will be displayed toward the bottom of the page



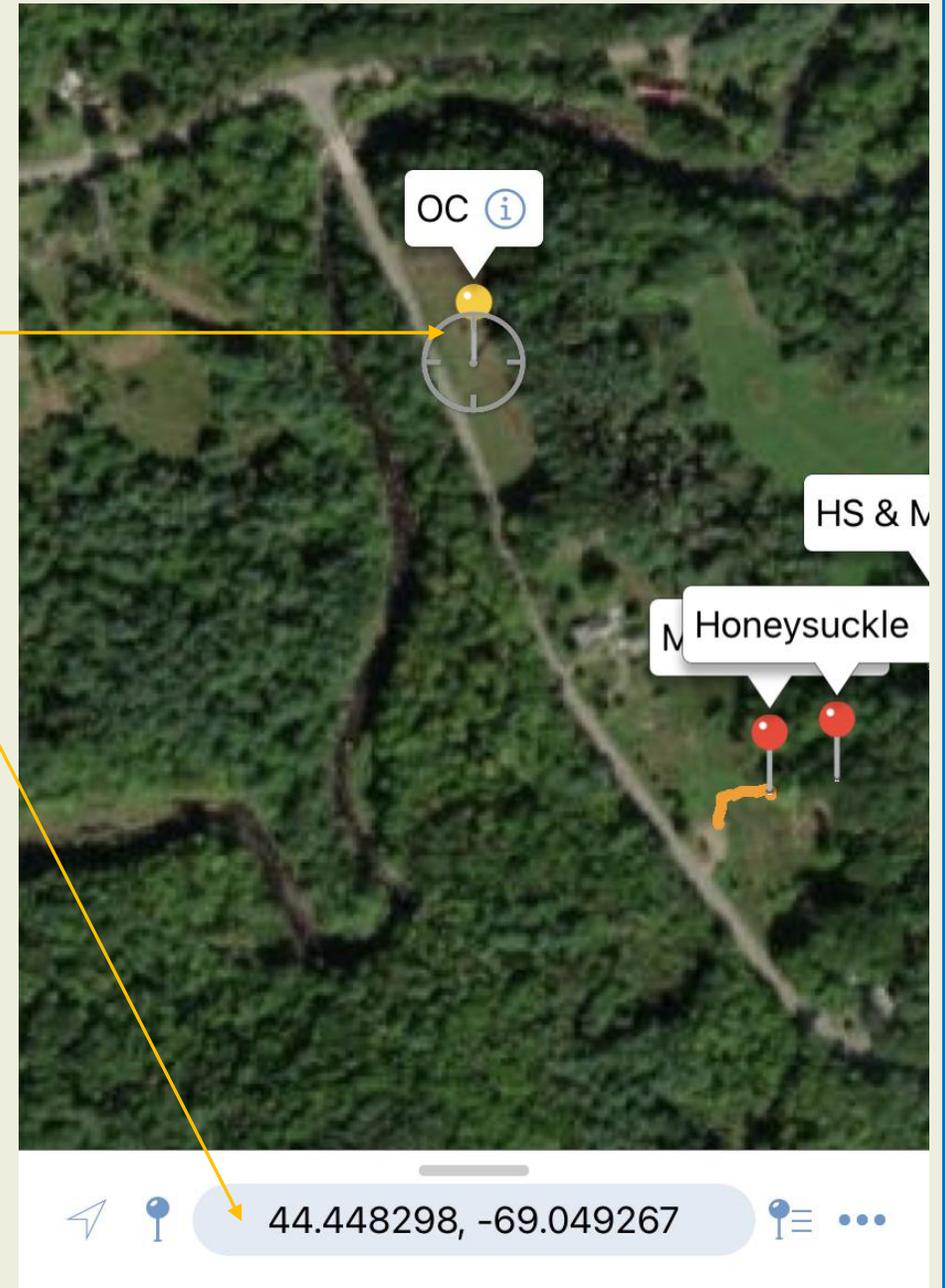
## Creating/Using Waypoints

Our new waypoint (OC) is marked with a yellow pin and labelled. You can edit, add a picture, or description by clicking the 

To determine the waypoint's coordinates, you can hover over it with your crosshair or click the  and look at the location section.

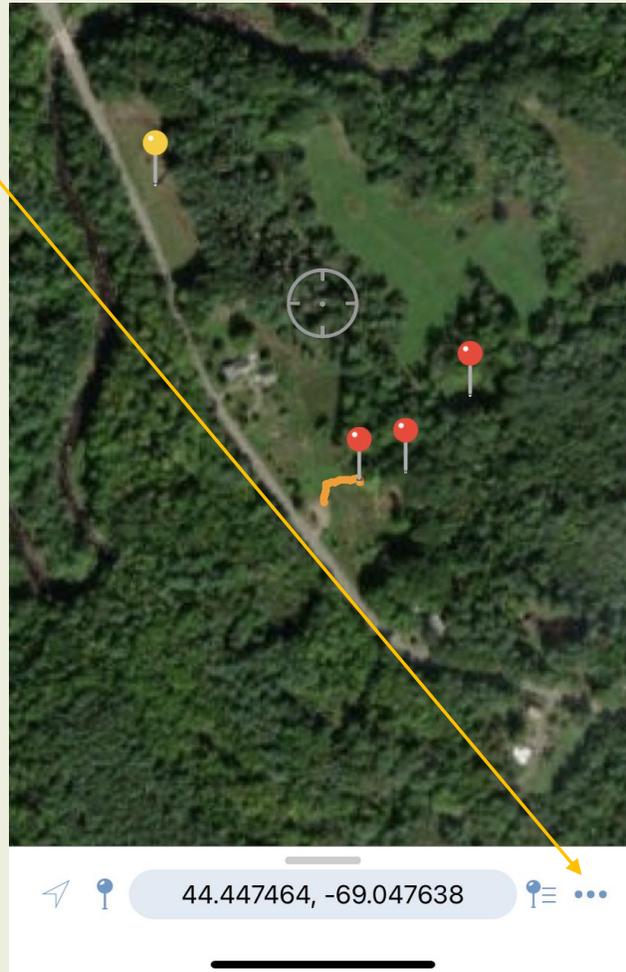
Although we used a cemetery center for our example, there are lots of ways we can use the waypoint feature on our woodlots. The waypoints in red, are invasive plants: multiflora rose and non-native honeysuckle. Identifying invasive plants prior to timber activities may help reduce their spread. In a later example we will see where an old foundation was marked with a waypoint to be protected during a timber harvest.

Next, we will take a look at a few ways we can navigate using Avenza maps.

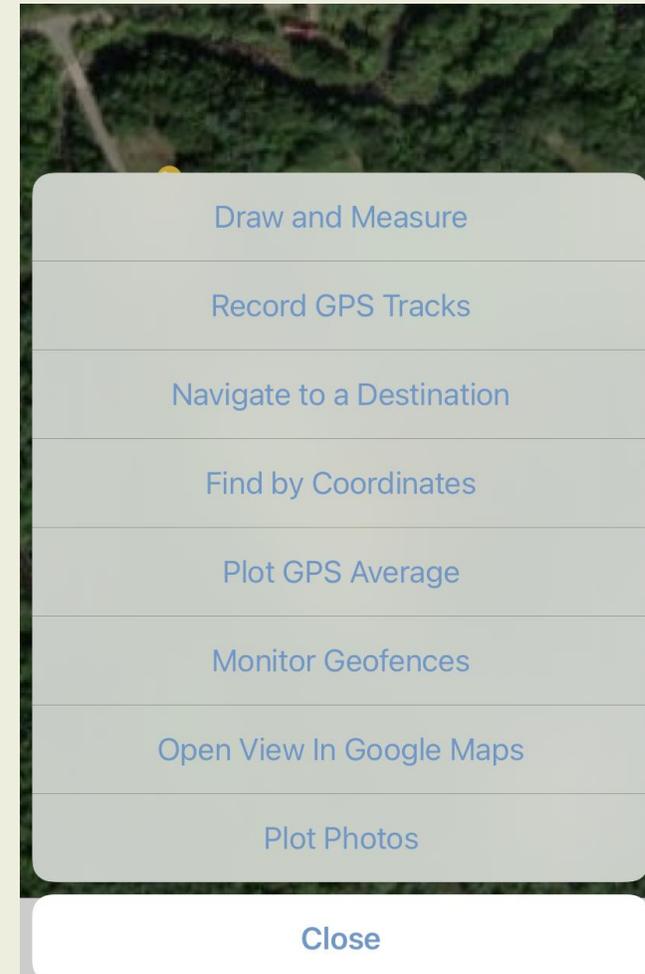


# Navigation

To begin navigation, click the three dots on the lower right-hand side of your screen.

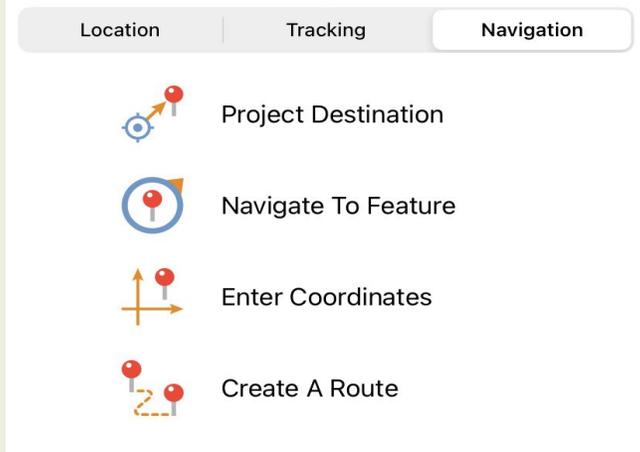


Next, select, 'Navigate to a Destination'

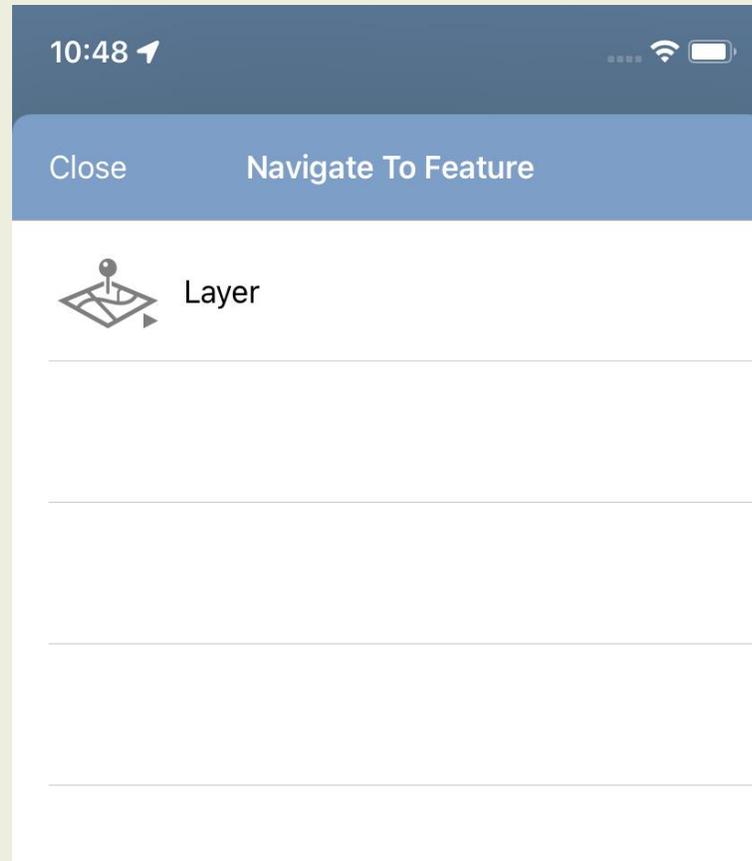


# Navigation

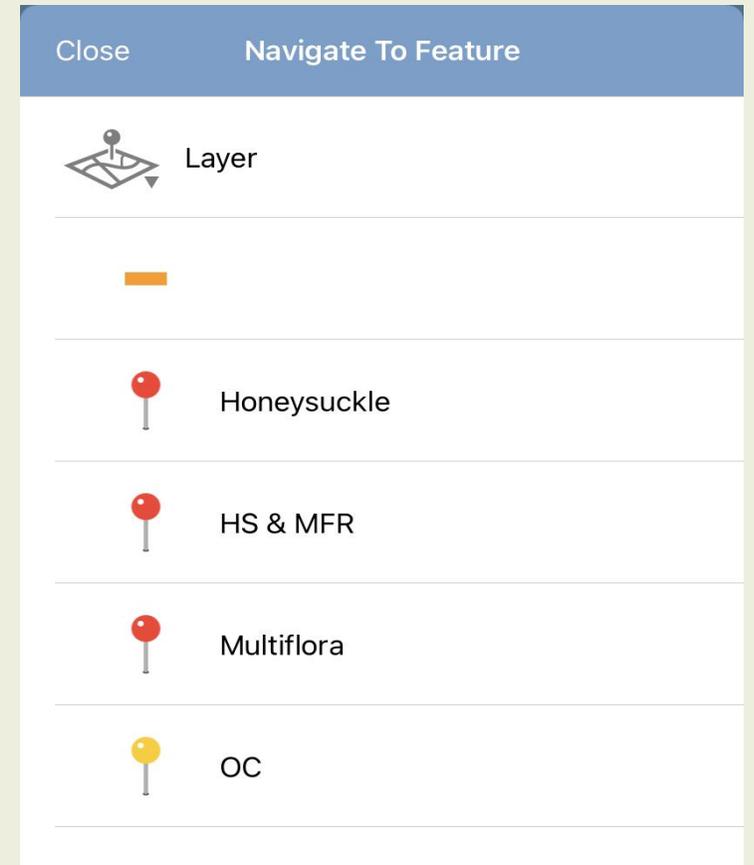
You will notice four different ways you can navigate using the app. For this tutorial, we will navigate to our waypoint. Select, **“Navigate To Feature”**



Once you've selected your navigation method, open your, 'Layer' folder



Select the layer that you wish to navigate to from your current location. For our example, it is **OC.**

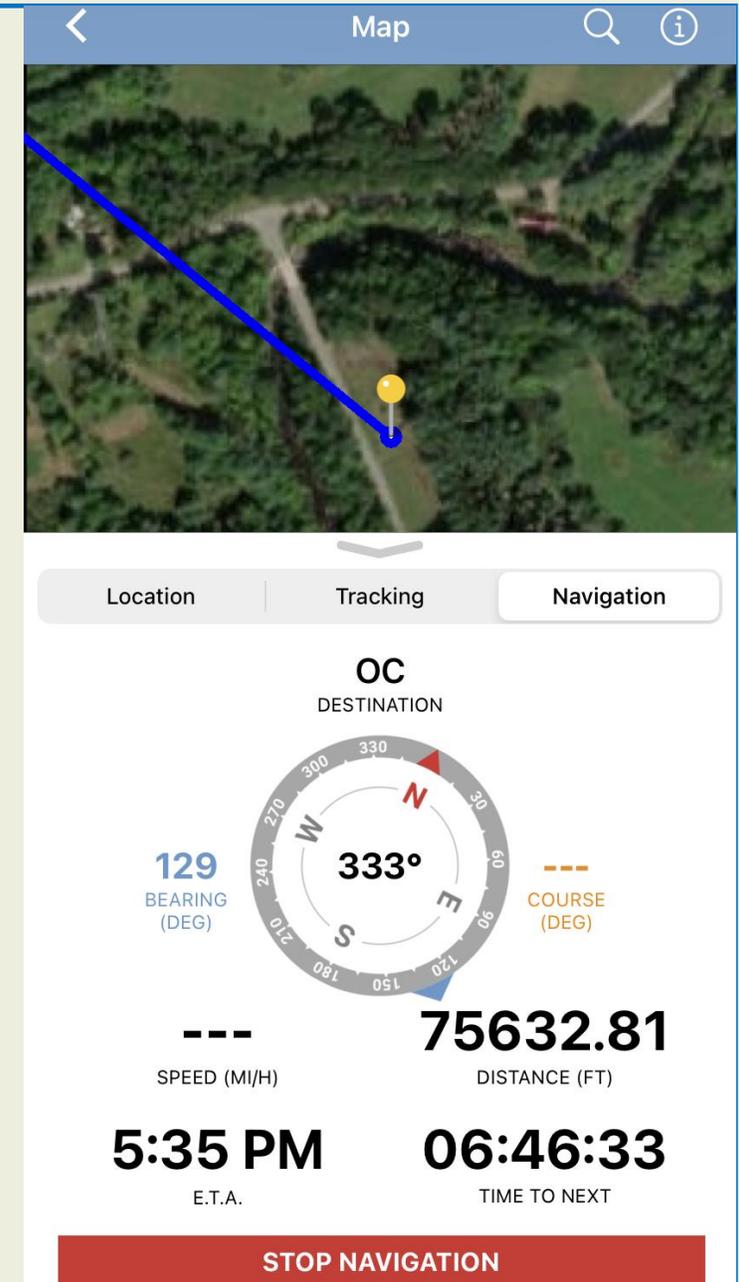


# Navigation

Selecting, 'Navigate To Feature' will bring us to this screen. From here, you can navigate from your current location (blue dot) to the marked waypoint.

The labelled waypoint is at the top of your compass, the compass will display direction and bearings, when you start to move-your speed will be calculated, the remaining/projected distance is displayed, and your ETA will be present.

If at any time you wish to stop navigation, hit the red button at the bottom of your screen.

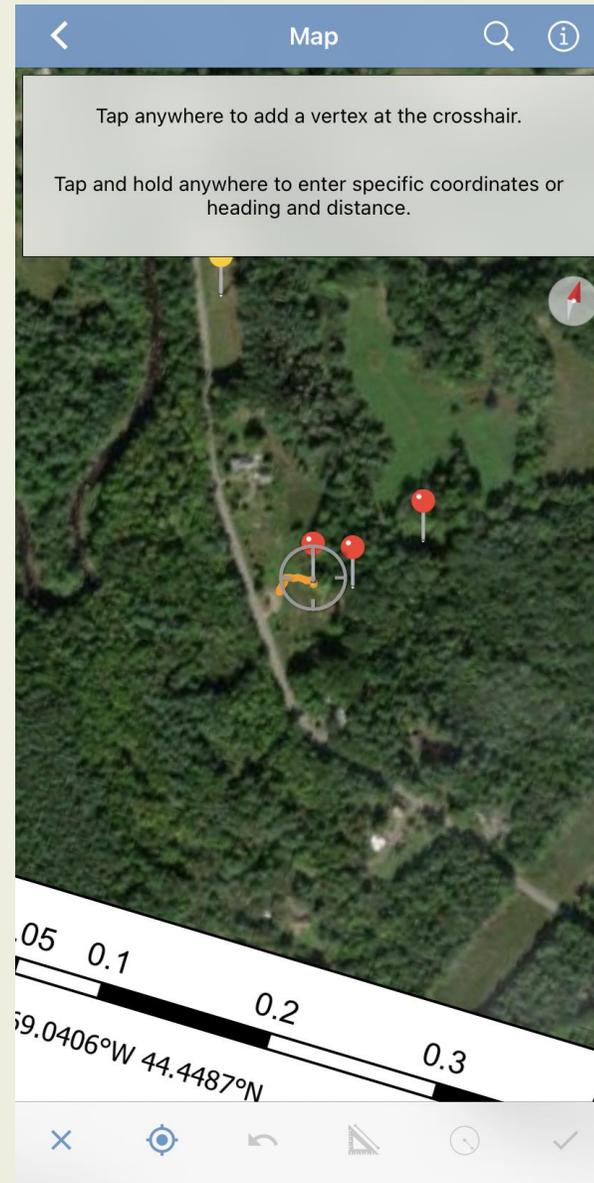


# Using the Draw & Measure Tool

You can determine the distance between points/tracks by using the draw/measure tool. Click the three dots at the lower right-hand side of your screen and select, '**Draw and Measure.**'

Next, tap on one of the points/tracks you wish to use as your vertex by placing it within the crosshair. Drag the line to the destination point/track or tap and hold to enter a coordinate.

I started my measurement at the rose pin (red) and extended it to the cemetery/OC pin (yellow). Then, hit the checkmark in the lower right-hand side of the screen to complete my measurement.

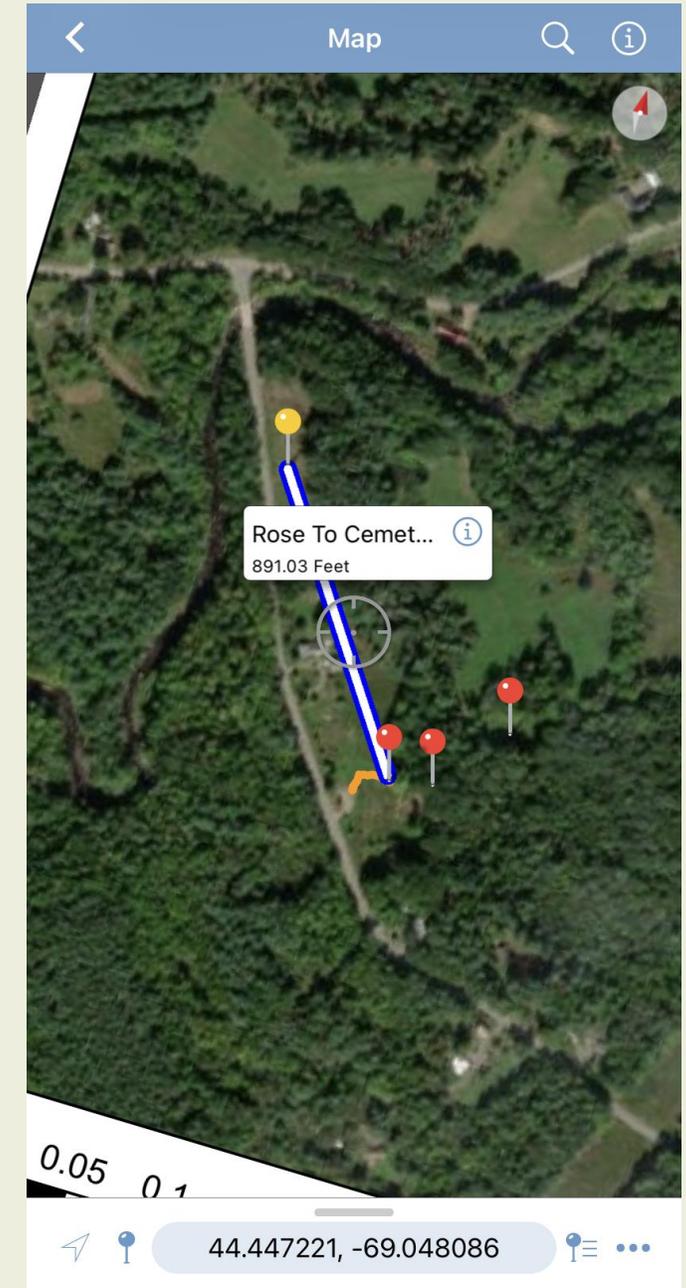


## Using the Draw & Measure Tool

Now we have a measurement between our two points. You can click on the line to label it and change the line color and thickness (same method as labeling a waypoint). I titled mine, 'Rose to Cemetery' and changed the line color to white from default orange. It helps to keep your measurement lines and tracks a different color.

When you are done with the measurement line, you can click on it and hit the 

At the bottom of the page, you will see a bin symbol. Clicking this will delete the measurement from your map.



## Creating/Using Tracks

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Creating tracks helps to see where you have been on your property. As your blue dot moves, Avenza Maps follows along, creating a line of your movement. This may be useful for trail mapping, creating new trails/skidtrails, defining your boundary, and/or to find your vehicle when it's time to go home. I use Avenza Maps while at work but also on my personal phone when I'm running or hiking. It's easy to get turned around on a new trail!

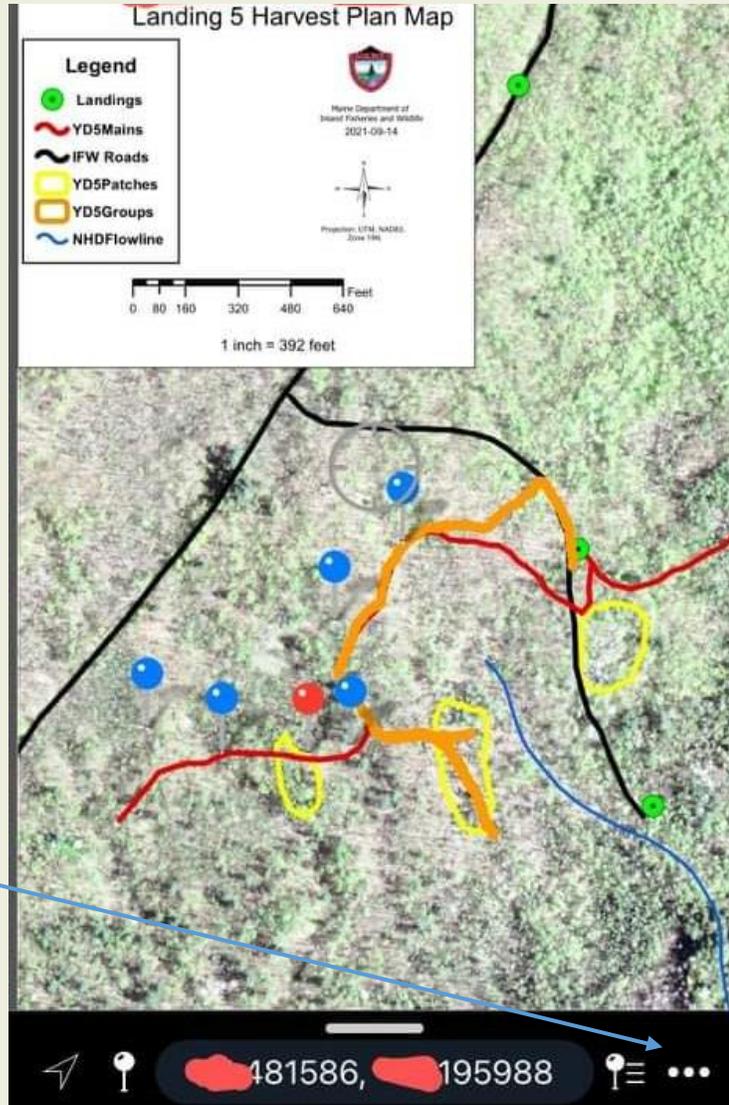
Let's look at how to create a track using a map of Frye Mountain-Gene Letourneau Wildlife Management Area, Knox-Montville, ME. Coordinates and some names have been redacted.



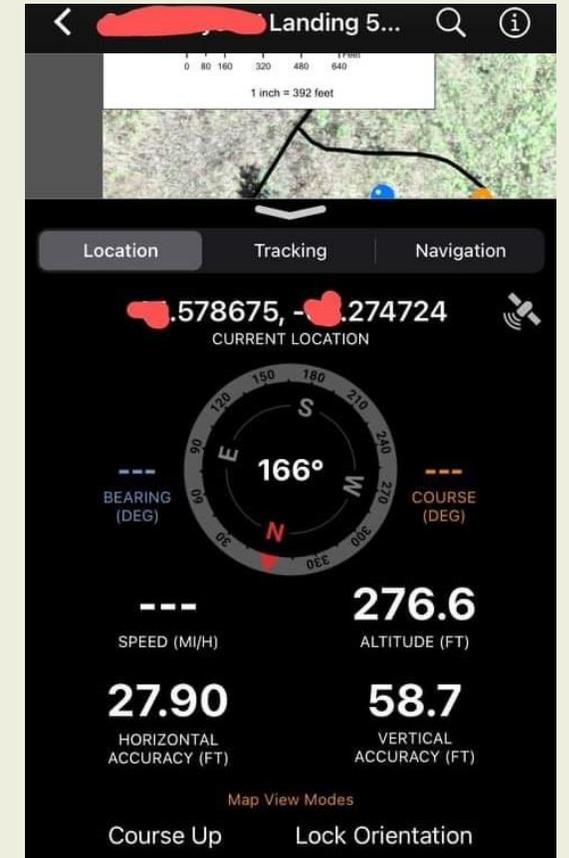
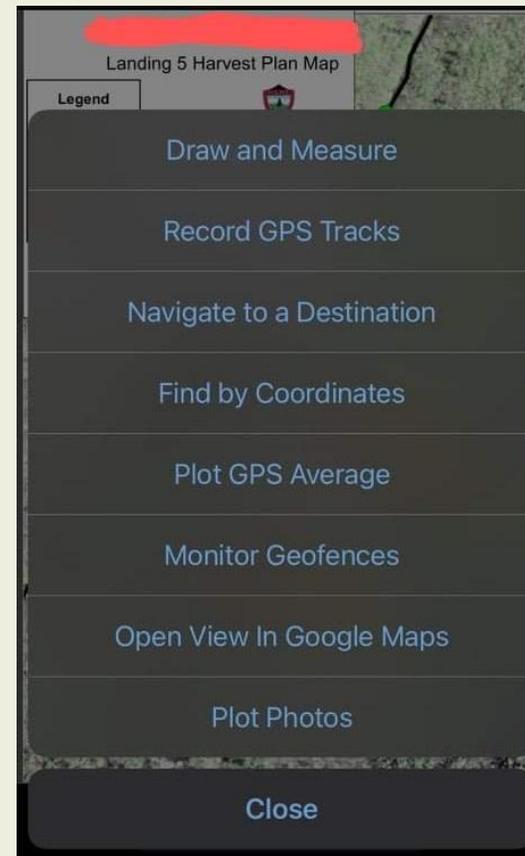
# Creating/Using Tracks

We will start by selecting the map in the same way we did to create a waypoint in, 'My Maps.'

Next, we click the three dots in the lower, right-hand side of the screen.



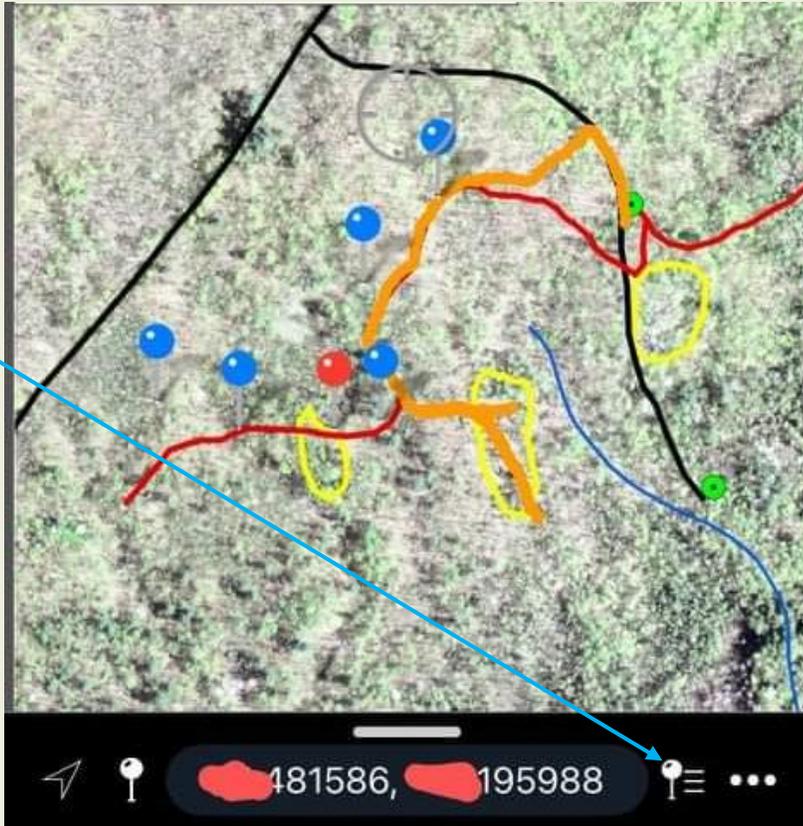
Then, select 'Record GPS Tracks.' And, hit the green button at the bottom of the screen that states, 'Start Tracking.' There will be an option to pause or stop tracking at the bottom of your screen. Click your track to give it a title in the same way you labeled your waypoint



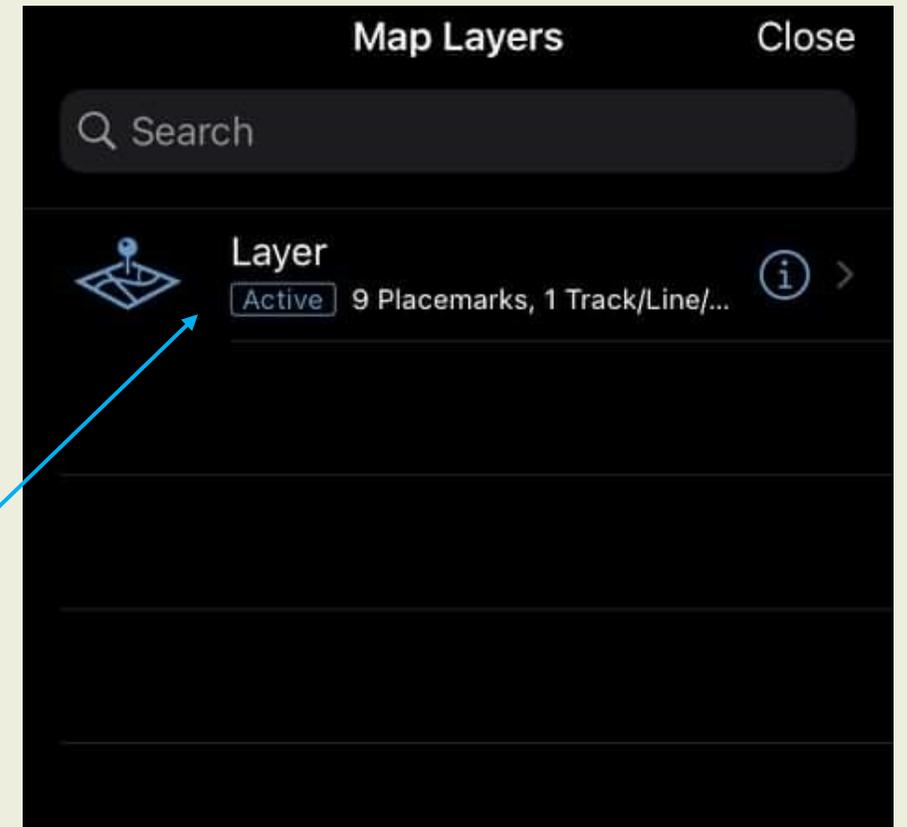
# View Your Layers

Once you've marked several waypoints and created a few tracks, your map may start to look a bit congested. This can make it difficult to locate a specific track or waypoint. Instead of searching through your map to find waypoints and tracks, you can click the, 'Layers' button to view them in a list.

Select the pin with three dashes



This map layer has 9 waypoints and 1 track. Click the, 'Layer' folder to view them.

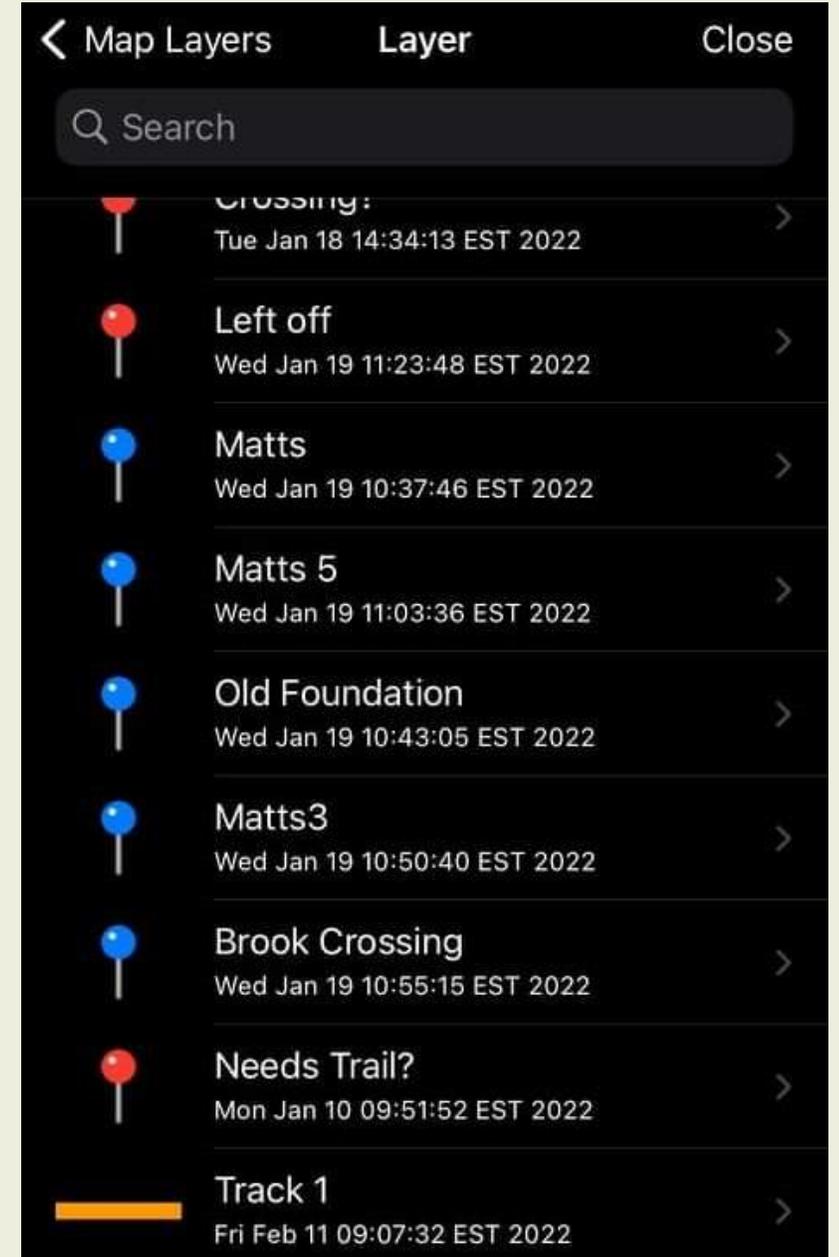


# View Your Layers

Now we can see a list of waypoints and the track. Each marker and track will display the date and time of its creation.

You can click on a waypoint or track and the app will direct you to the point/track and place the bullseye over it.

Once you have been directed to the feature, you can navigate/edit/add a picture/view your waypoint or track.



# Video Tutorials

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Avenza Maps has created YouTube videos that explain some of the features we covered. For those of you that learn by viewing/doing, please click the URL for your device below. You should be able to follow along with the video.

iOS

<https://youtu.be/sywVQDF5wLo>

Android

<https://youtu.be/z3sj5AYC3EI>

