

1. Set Up Your Android Phone to Use GEO-PULSE

What is GEO-PULSE?

GEO-PULSE is a GPS device that utilizes RTK (Real-Time Kinematics) technology to correct standard GPS from an accuracy of approximately 5m to under 0.1m.

What do you need to do, and why?

Only the GEO-PULSE app can read the position of the GEO-PULSE device. Other map apps show the position of the phone's internal GPS. To change this so that all apps can read the GEO-PULSE position, the device's internal GPS must be overridden. This is easily done by putting the phone into Developer Mode and enabling a setting called Mock Location.

This guide shows you how to...

- Download the GEO-PULSE app and connect your device
- Enable Developer Mode and Mock Location in the Settings app
- Verify that Mock Location is working using Google Maps

Different Android Phone Brands

Currently, iPhones do not support overriding the internal GPS position. If you do not have access to an Android phone, you can purchase a Google Pixel 7a from AG-GPS's supplier. If you have access to another Android phone, you can use that as well.

Most Android phones support Mock Location, but the menu layouts in the Settings app vary. Therefore, this document contains different guides tailored to each phone brand on how to change device settings:

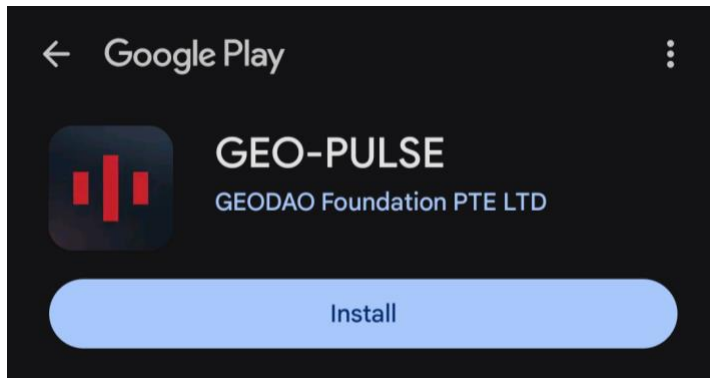
- *5. Google Pixel – Change Device Settings (p. 7)*
- *6. Samsung – Change Device Settings (p. 9)*

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3. Download GEO-PULSE

Use your phone to follow [this link](#) to the Google Play Store, or scan the QR code:



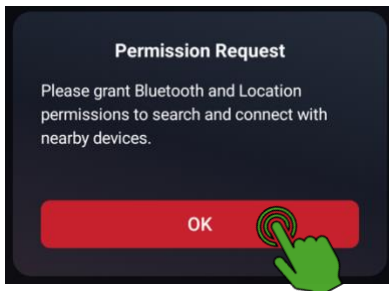
4. Connect the GEO-PULSE Device and Your Phone

Connect the devices via Bluetooth

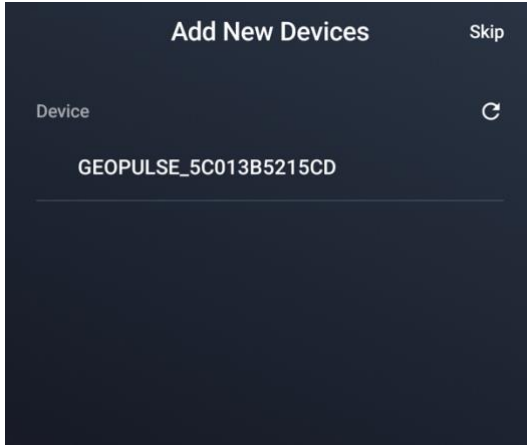
1. Connect the power bank to the GEO-PULSE device



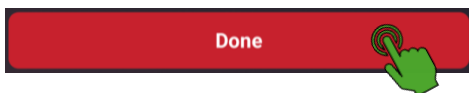
2. Open the GEO-PULSE app
3. Grant the app the permissions it requests



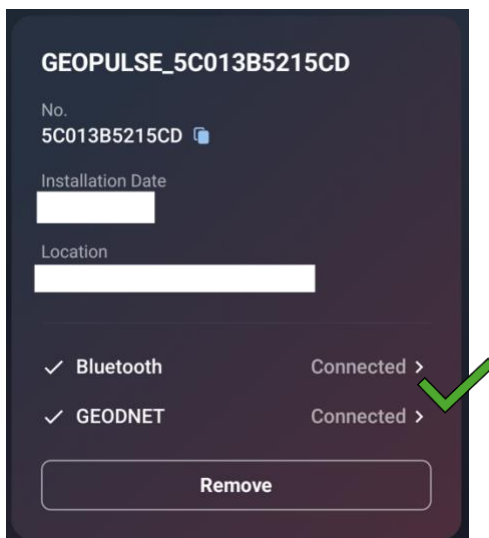
4. The app will search for nearby devices
5. Wait until the phone has found your device and it appears in the menu
 - a. Check that the ID number matches your device
 - b. The ID number is located on the back of the GEO-PULSE device



6. Select the correct device and wait for it to pair
7. Notification Access: You are free to choose whether you want to receive notifications from the app
8. Confirm the Bluetooth pairing if prompted
9. At the bottom of the screen, tap “Done”



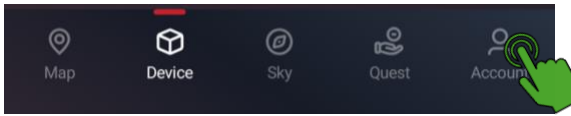
10. Verify that both “Bluetooth” and “GEODNET” are connected.



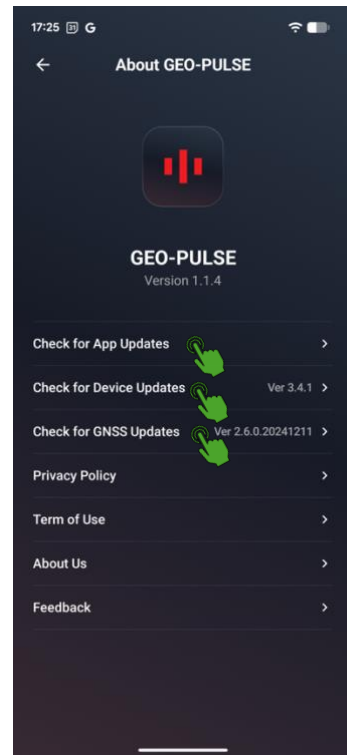
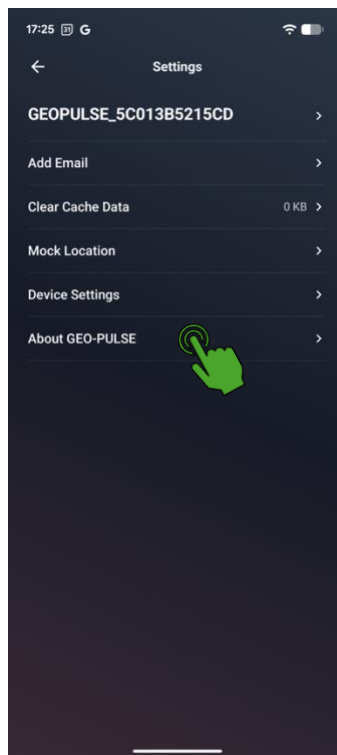
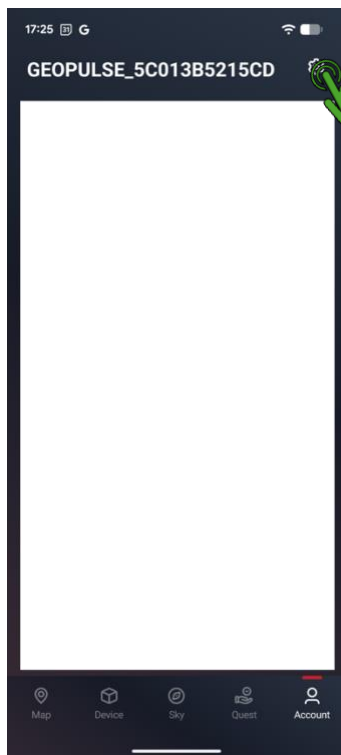
Check for updates

Check if there are any available App, Device or GNSS Updates in the app.

1. In the bottom menu, select “Account”



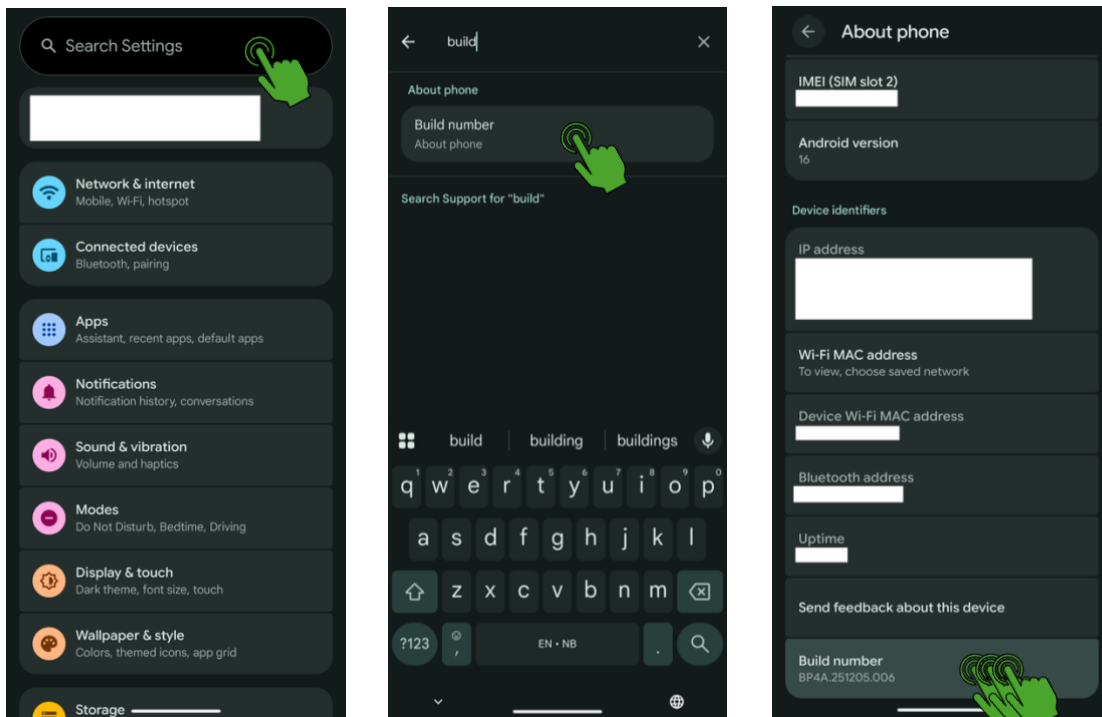
2. Tap the settings icon in the top right corner
3. Select “About GEO-PULSE”
4. Click on the top three options to check for updates
 - a. If an update is available to any of the options, follow the on-screen instructions.



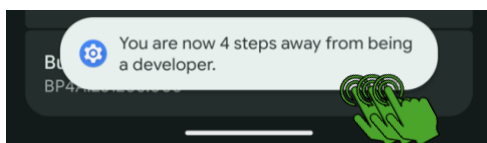
5. Google Pixel – Change Device Settings

Enable Developer Mode

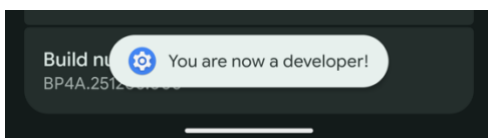
1. Open the Settings app and search for "build" in the top search bar
2. Select "Build number"
3. In the menu that appears, tap "Build number" multiple times



4. A pop-up will begin counting down; keep tapping

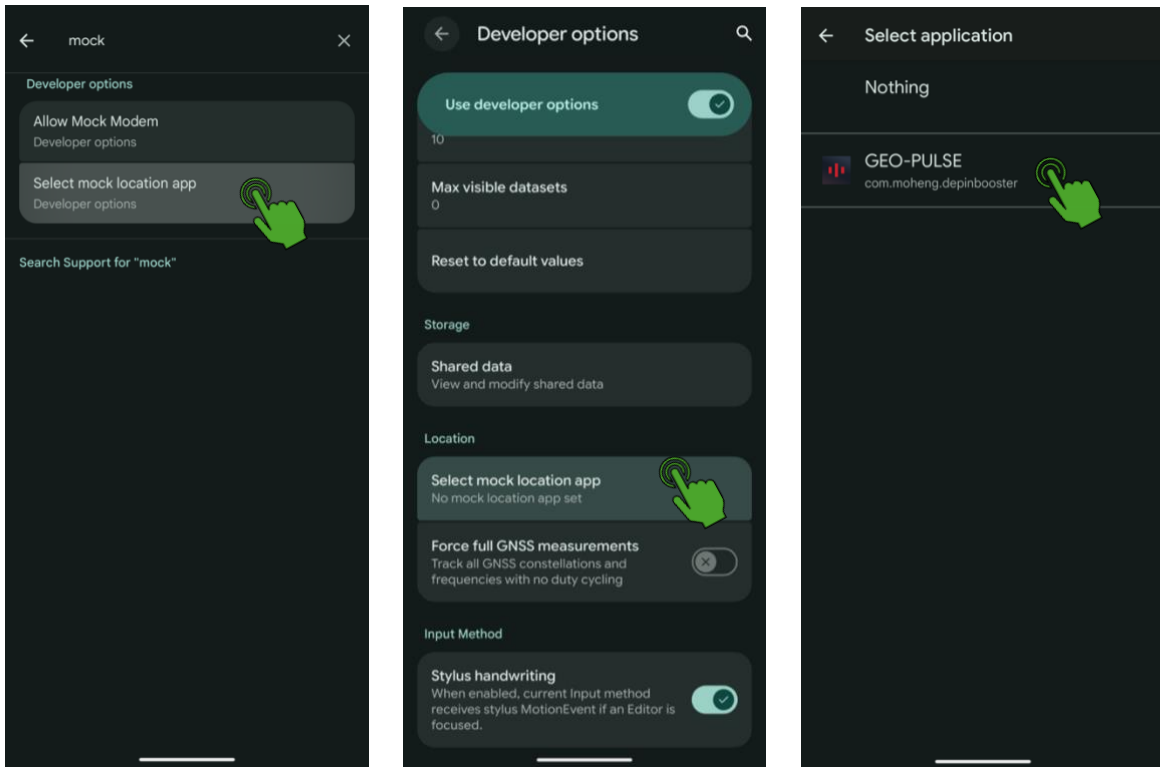


5. Enter your phone's PIN/password if prompted



Enable Mock Location

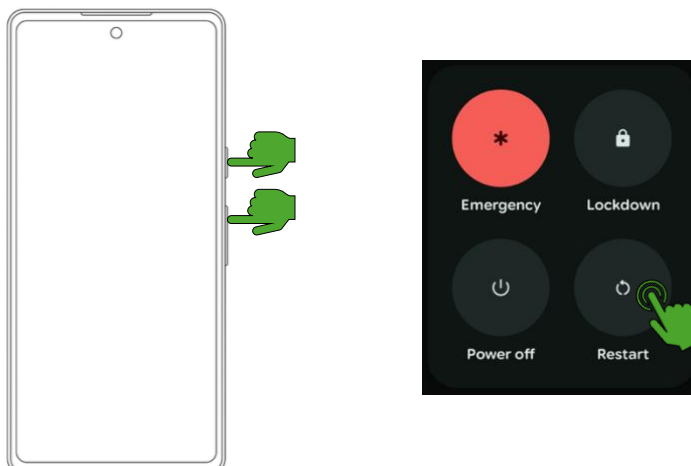
1. Return to the search bar in Settings and search for "mock"
2. Select "Select mock location app"
3. Select GEO-PULSE



Restart the phone

Restart the phone to ensure that no map apps are still using the built-in GPS.

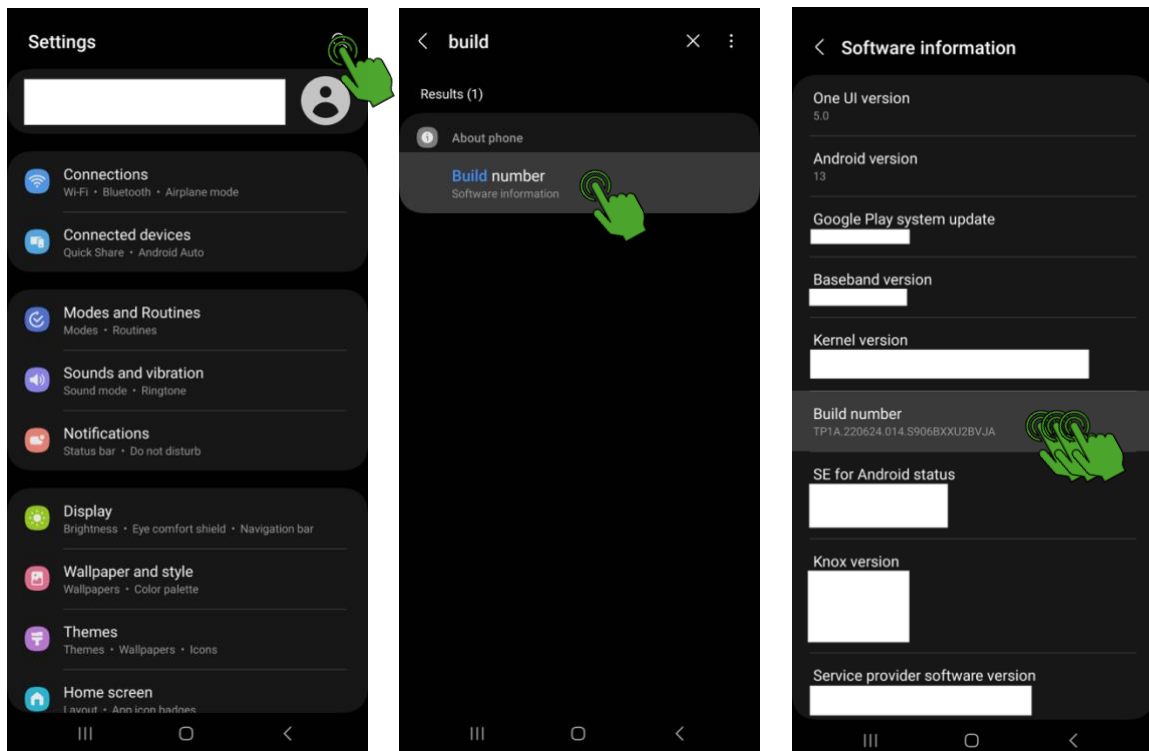
1. Simultaneously press the power button and the volume up button on the right side of the phone
2. Select "Restart"



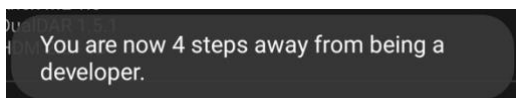
6. Samsung – Change Device Settings

Enable Developer Mode

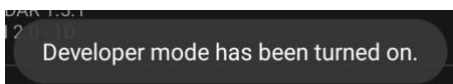
1. Open the Settings app and search for "build" in the top search bar
2. Select "Build number"
3. In the menu that appears, tap "Build number" multiple times



4. A pop-up will begin counting down; keep tapping

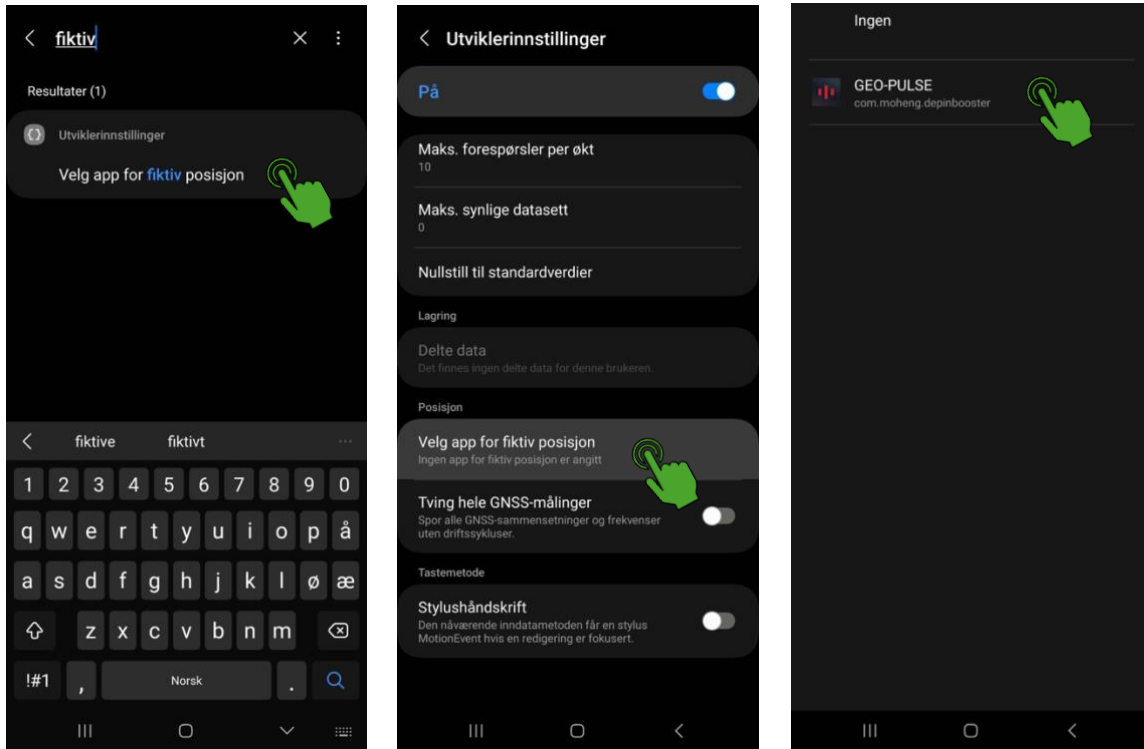


5. Enter your phone's PIN/password if prompted



Enable Mock Location

1. Return to the search bar in Settings and search for "mock"
2. Select "Select mock location app"
3. Select GEO-PULSE



Restart the phone

Restart the phone to ensure that no map apps are still using the built-in GPS.

1. Simultaneously hold down the *power button* and the *volume down button* on the right side of the phone
2. Select "Restart"

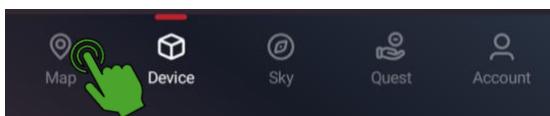


7. Verify that everything is Working

Check RTK Connection

1. After restarting your phone, open the GEO-PULSE app and connect to the GEO-PULSE device.
 - a. This should happen automatically if the GEO-PULSE device is turned on.
 - b. As before, verify that both "Bluetooth" and "GEODNET" are connected.

2. In the bottom menu, select "Map"



3. Look at the icon and text for "RTK" in the top left corner.
 - a. If the color is green, the device has a strong RTK signal. A yellow color indicates a moderate RTK signal.



- b. If the color is blue, red, or purple, the device does not have an adequate RTK signal.
 - i. Try moving to a different location or wait a moment.
 - ii. You can find more information on the GEO-PULSE [FAQ \(Frequently Asked Questions\) page](#).

Check if Mock Location is Active

1. Open Google Maps
2. Optional: Change the map type from Default to Satellite.

There are two simple ways to verify that the displayed location is actually the location of the GEO-PULSE device:

1. Zoom all the way in on the location marker, as far as possible.
 - a. The blue halo surrounding the marker indicates the accuracy of the GPS readings.
 - b. If RTK is not active, the blue halo will have a diameter of 5–10 meters.
 - c. If RTK is active, the blue halo will be very small or completely gone.



2. Walk a short distance away from the GEO-PULSE device (but stay within Bluetooth range).
 - a. If your location in Google Maps does not change, it is showing the location of the GEO-PULSE device.
 - b. If the location marker follows your movements, Mock Location is not active.
 - i. Try repeating the setup steps.

Your phone is now set up to use GEO-PULSE's RTK-GPS in any map app, such as GLFR and Gimmie.