Using the GLRM Receiver with GIS Survey Mobile

GIS Survey Mobile is an app created to help surveyors carry out topographic measurements more efficiently. This guide shows how to use the GLRM receiver together with the GL Connect app to deliver precise positioning to GIS Survey Mobile on Android devices. GL Connect functions as a mock location provider by streaming corrected GNSS data from the GLRM receiver and sharing it with other apps. To enable this with GIS Survey Mobile, you must configure GL Connect with your NTRIP credentials and set it as the mock location app in your Android system settings.

After installing and launching the GIS Survey Mobile app, create a new project or open an existing one. When the project is loaded, the main map view will appear. In this view, GIS Survey Mobile displays the current positioning data, such as accuracy, coordinates, and altitude, in the second top bar. Select the internal GPS in the top bar. At this point, GIS Survey Mobile is ready to receive location data. However, to use the high-precision GNSS positions from your GLRM receiver, you need to set up GL Connect as a mock location provider, as described in the following steps.	
To ensure proper communication between the GLRM GNSS receiver and QField, configure the GL Connect app as follows: 1. Open the GL Connect app. 2. Navigate to the “Connection” tab. 3. Enable the following options: • **Background Execution** – Allows the app to run continuously in the background. • **NTRIP Client** – Activates real-time correction data streaming via an NTRIP connection. Please note: this option becomes available only after completing the NTRIP configuration in GL Connect. • **Mock Location** – Enables the app to provide corrected GNSS coordinates to other applications by overriding the internal GPS location. Please note: this option becomes available only after selecting GL Connect as the mock location app in your Android device’s developer settings.	
Adding an NTRIP Profile in GL Connect From the GL Connect main screen, navigate to the NTRIP section. Enter the required connection details, including the server address, port, username, and password. Then, select the appropriate mount point from the list. Once all fields are completed, initiate the connection by tapping Connect to NTRIP Client.	

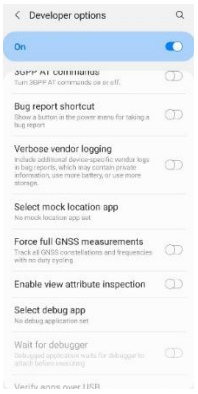
Enabling Developer Options on Your Android Device

To allow the use of Mock Location with external GNSS receivers, you first need to unlock the Developer Options on your Android device:

1. Open your device's Settings.
2. Scroll down and select About Phone (or About Device, depending on your Android version).
3. Locate the Build Number entry.
4. Tap the Build Number repeatedly (approximately 7 times) until you see a message confirming that Developer Options have been unlocked.
5. Return to the main Settings menu, where you will now find a new section called Developer Options.

To allow your device to use corrected GNSS data from an external NTRIP client, follow these steps:

1. Navigate to Developer Options (previously unlocked).
2. Tap on Select mock location app.
3. From the list of available apps, select GL Connect.



Once the mock location app is selected and active, all applications on your Android device that use location services will automatically receive the high-accuracy positional data streamed from the GLRM GNSS receiver.

You can now open QField and begin surveying without any additional configuration. The app will use the corrected coordinates provided by the external receiver instead of the internal GPS.

Once GL Connect is properly configured and designated as the mock location provider, go back to the app. If the setup is correct, GIS Survey Mobile will start receiving position data from the GLRM receiver.
You should observe an improvement in the positioning accuracy shown in the status bar of the map view. Both vertical and horizontal accuracy should reflect the enhanced precision delivered by the GLRM receiver. This confirms that GIS Survey Mobile is effectively using the corrected GNSS stream for georeferenced data collection.