



About the LoadSol

The LoadSol insoles are excellent measures of cadence and force while walking and running. The SensorLab offers loadsol pro-t devices, which have 1 zone each. They can measure cadence and force across the entire surface, but only LoadSol-ap/acp/mlp devices can provide data for different areas under the foot.

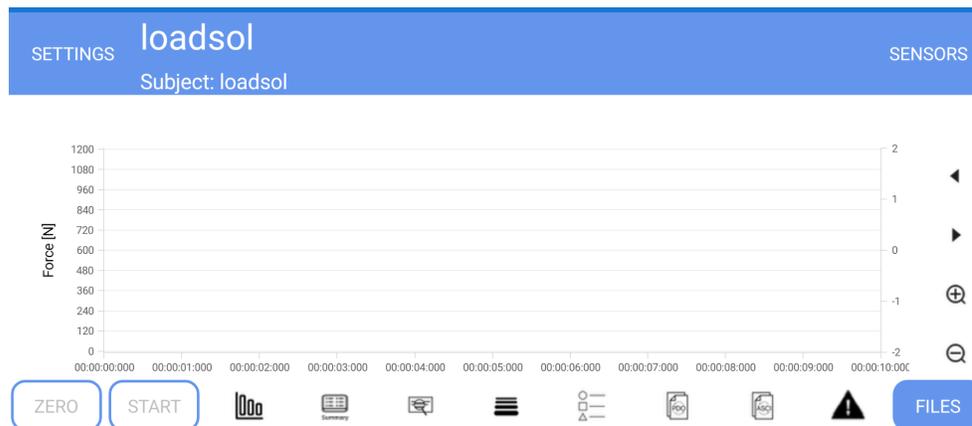
This tutorial will help you collect cadence and force data for up to 6 insoles at a time as a .txt file in your Google Drive.

LoadSol Quick Start Guide

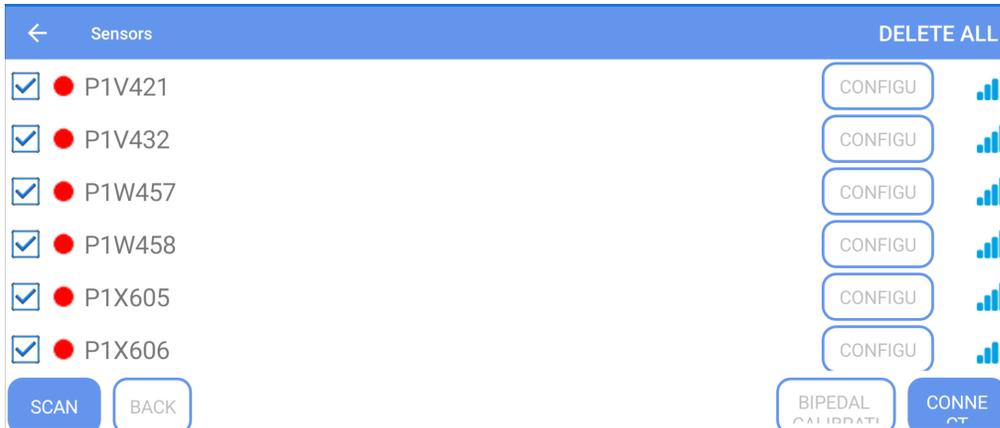
1. **Plug in** the LoadSol insoles using the micro USB chargers provided.
2. **Download** the loadsol-s app on your mobile device.



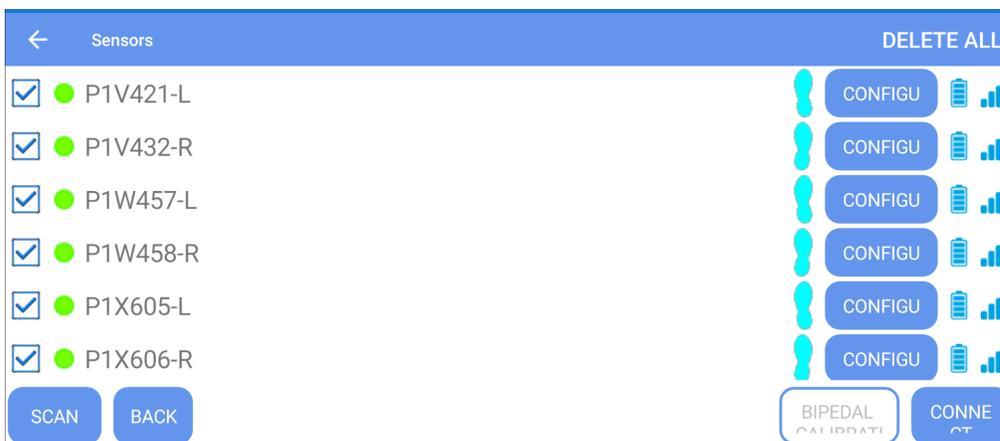
The home screen of the app looks like this:



3. **Connect** your LoadSol insoles to your mobile device. Press the  button on the strap of each LoadSol device, and turn on your mobile device's Bluetooth. On the top right of the loadsol-s app, tap 'Sensors' and click the check mark next to all devices you want to connect. **Note:** you can connect to up to 3 pairs of insoles at a time.



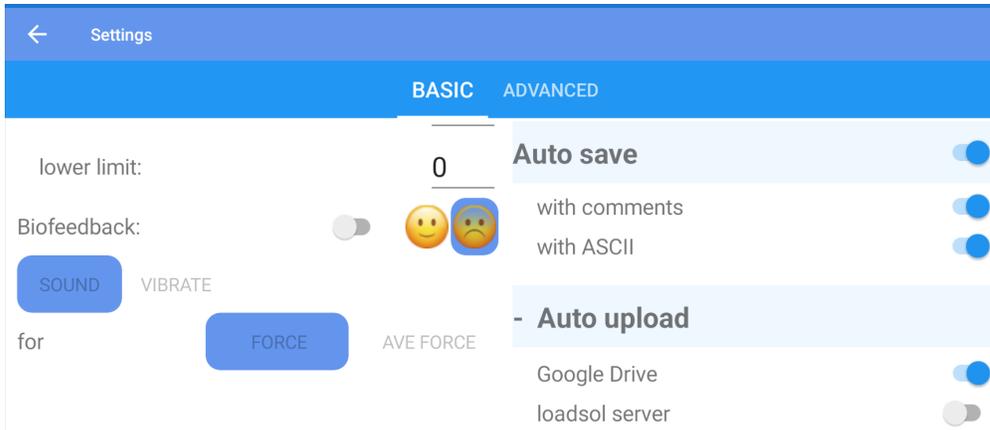
Tap 'Connect' on the bottom right of the app.



Tip: Tap 'Configure' next to any device's name to change the device's name, change the color on the graph, and see the battery level.

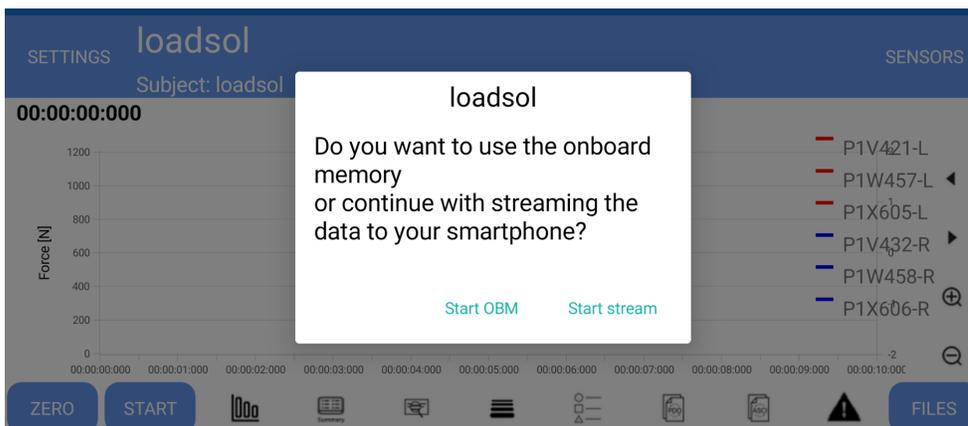
4. Configure settings.

- 4.1. Tap 'Back' to return to the home page. Tap 'Files' on the bottom right of the screen. Click on the Google Drive icon on the top of the screen to connect LoadSol to your Google Drive account.
- 4.2. Use the arrows on the top left of the screen to return to the home page. Tap 'Settings' on the top left. Turn on 'Auto save', 'with comments', 'with ASCII', and 'Google Drive'. Use the arrow on the top left of the screen to return to the home page. **Note:** Selecting 'with ASCII' will save your data as a .txt file instead of a .pdo file.

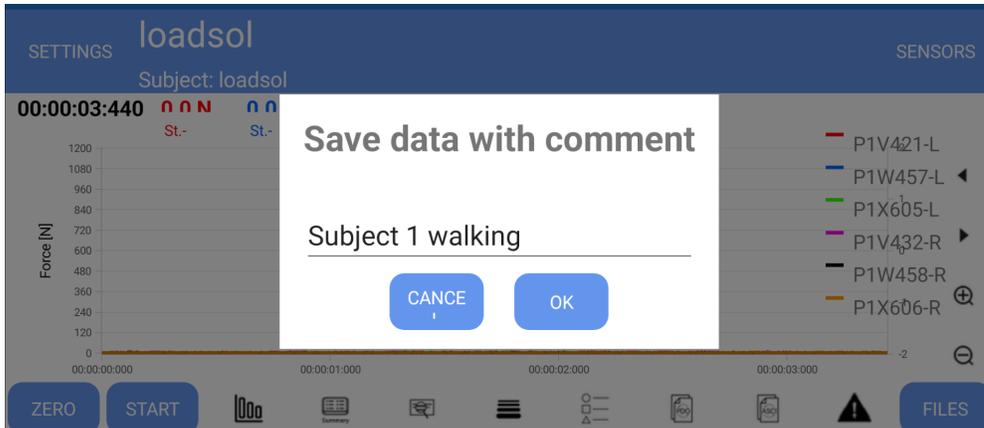


5. Collect data.

- 5.1. Ensure that all of your devices are right-side-up on the floor with nothing on top of them. Tap 'Zero' on the bottom left of the screen to calibrate each device.
- 5.2. Insert your LoadSol devices into your shoes and connect the strap to the laces of your shoes.
- 5.3. Tap 'Start' on the bottom left of the app to begin collecting data. If you see the following screen, select 'Start stream'. **Note:** 'Start OBM' is less reliable and only works with 2 pairs of insoles at a time.



- 5.4. Tap 'Stop' to end data collection. Enter a comment and tap 'Ok'.



Your data will be saved as a .txt file into your Google Drive.



- To convert your .txt file into a .csv file with headers in the form “Device1_Time[sec], Device1_Force[N], Device2_Time[sec], Device2_Force[N], etc”, go to the [Sensor Lab Github](#). Select the ‘LoadSol’ repository and download the txt_to_csv.py file in the same folder as your .txt file. Follow the instructions at the top of the file to download a .csv.