

About the LoadSol

The LoadSol insoles are <u>excellent</u> measures of cadence and force while walking and running. The SensorLab offers <u>loadsol pro-t</u> 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:

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	1200										2	2
Force [N]	840 720 600 480										- 1	•
	360 240 120											•
ZEI	0 00:00:00:00	0 00:00:01:000 START	00:00:02:000	00:00:03:000	00:00:04:000	00:00:05:000	00:00:06:000	00:00:07:000	00:00:08:00	0 00:00:09:000	00:00:10:	FILES

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.*

÷	Sensors	DELETE ALL
• • • • • • • • • • • • • • • • • • •	P1V421	CONFIGU
•	P1V432	CONFIGU
•	P1W457	CONFIGU
•	P1W458	CONFIGU
•	P1X605	CONFIGU
 • 	P1X606	CONFIGU
SCAN	ВАСК	BIPEDAL CALIBRATI

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

÷	Sensors		DELE	TE /	ALL
	P1V421-L		CONFIGU		al
 • 	P1V432-R		CONFIGU		al
 • 	P1W457-L	81	CONFIGU		al
 • 	P1W458-R		CONFIGU		al
 • 	P1X605-L		CONFIGU		al
	P1X606-R	81	CONFIGU		al
SCAN	ВАСК	BIP		CON	NE

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.*

← Settings			
	BASIC	ADVANCED	
lower limit:	0	Auto save	•
Biofeedback:	• •	with comments with ASCII	
SOUND VIBRATE	FORCE AVE FORCE	- Auto upload	
		Google Drive loadsol server	•

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.*

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00.0) 000-00-0	Subject:	loadsol			loadso	I						
Dice [N]	D:00:000 1200 800 600		Do you want to use the onboard memory or continue with streaming the data to your smartphone?					■ P1V421-L ■ P1V421-L ■ P1W457-L ■ P1X605-L ■ P1V432-R			•		
Fo	400 200 0			Start OBM St			Start	Start stream			P1W45	58-R 6-R	Ð
	00:00:00:000	00:00:01:000	00:00:02:000	00:00:03:000	00:00:04:000	00:00:05:000	00:00:06:000	00:00:07:000	00:00:08:000	00:00:09:000	00:00:10:00	C	a
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5.4. Tap 'Stop' to end data collection. Enter a comment and tap 'Ok'.

SETTINGS	loads	ol Ioadsol					
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840 720 800 480 360 240 120			Subject 1 wal	king ок	-	-	P1X605-L P1V432-R P1W458-R P1X606-R €
0 00:00:00:00 ZERO	²⁰ START	000	00:00:01:000	00:00:02:000	6	00:00:03:000	

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



6. 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 <u>Sensor Lab Github</u>. 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.