

Stridalyzer PRISM

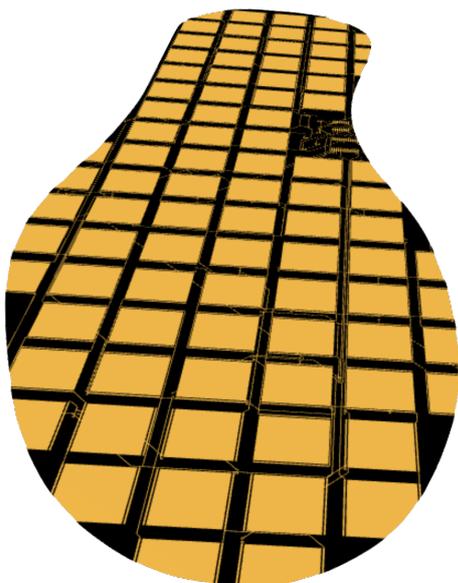
Sensor Insoles Advanced Diagnostics and Gait Research Spec Sheet

Solution Components

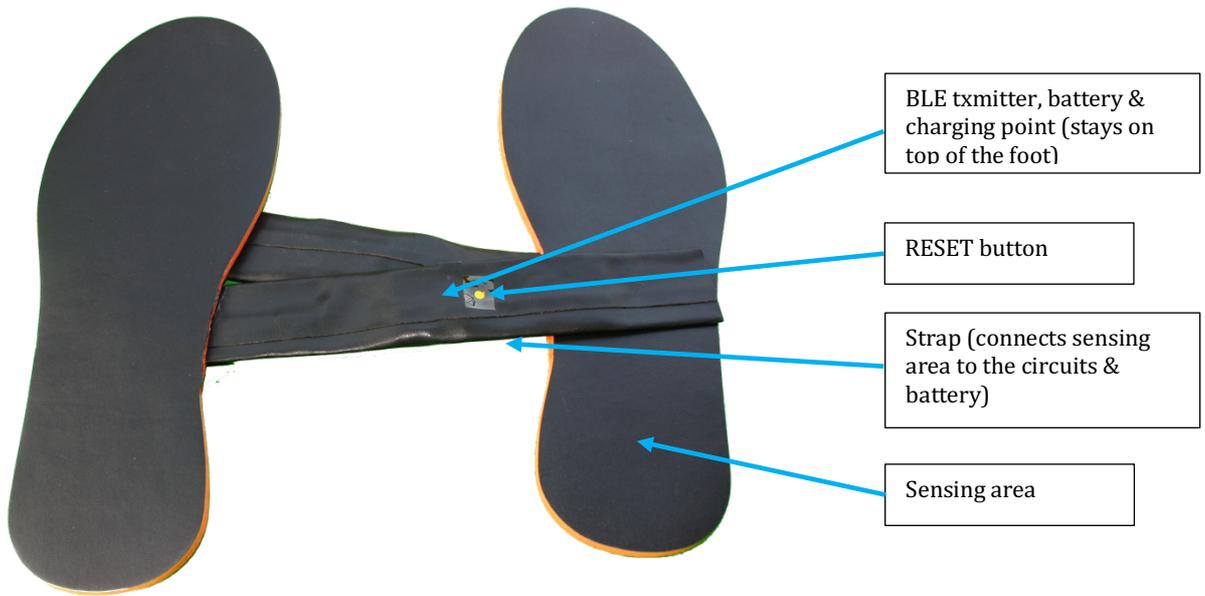
1. Sensor-embedded insoles (to be worn by patient)
2. App running on iPad for data collection, visualization and rehabilitation
3. Back-end cloud-based storage for storing data
4. Web-based portal for Clinician/Doctor to review, analyze long-term trends, assign treatment plans online, etc

Structure & Sensor Placement

- One 6-axis IMU (in the strap resting on top of foot)
- Piezo-Resistive Force Sensors placed in the entire foot area. Sensors with size of 12.5mm x 12.5mm are laid out in a grid pattern. Spacing between two sensors is 3.5mm in each direction, creating an effective coverage area for each sensor of 16mm x 16mm. Sensor count depends on the insole size:
 - 60 sensors for 25cm insoles at the minimum
 - 100 sensors for 30cm insoles at the maximum



Representative sensor arrangement



Insole & Sensor Properties

Sensors used	<ul style="list-style-type: none"> ● Piezo-resistive force sensors (60-96) ● 6-axis inertial motion sensor (Accelerometer + Gyro Combo)
Gait properties measured	<ul style="list-style-type: none"> ● Instantaneous forces on every 16mm x 16mm area below the foot ● Foot Orientation ● Foot Vibration ● Stride Length ● Ground Contact Time ● Stride Rate (Cadence)

	<ul style="list-style-type: none"> ● Strike Type ● Pronation Type ● Overstriding/Understriding ● Weight Distribution (Body Balance) ● Impact Forces ● Pushoff forces ● Loading Rate (dF/dt)
Sensing frequency	20 Hz (default), configurable from 1 Hz to 50 Hz
Insole thickness	4mm
Minimal bending radius:	50mm
Insole Profile	Fully flat
Circuit Battery life	10 hours of continuous usage
Charging Mechanism	Micro-USB Charging
Water resistance	IP5 (low-volume water/sweat exposure resistant)
Compliance Standards	FCC, CE, RoHS, TELEC, Canada IC
Insole weight	100g per pair
Insole sizes	25cm - 30cm; customizable as per preference
Insole material	EVA Bottom, High-density PU film on top
Insole cleaning	Wipe the insole top & bottom with disinfectant wipes.
Insole Warranty	1 year [Free replacement every 6 months if on subscription plan]

App & Cloud Software

Platforms Supported	iOS [Best on iPad] Any platform with Google Chrome browser
Communication Method	Sensor Insoles to App: Bluetooth LE 5.0 with backward compatibility to BLE 4 App to Cloud: Secure Internet
Key Features	<ul style="list-style-type: none"> ➤ Send report to Patient with single click ➤ Assign & monitor rehab/Training plans ➤ Review short-term & long-term progress ➤ Set baseline & compare against baseline ➤ Record & recall specific pressure point instances