

Stridalyzer INSIGHT for In-Clinic Diagnostics: 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.

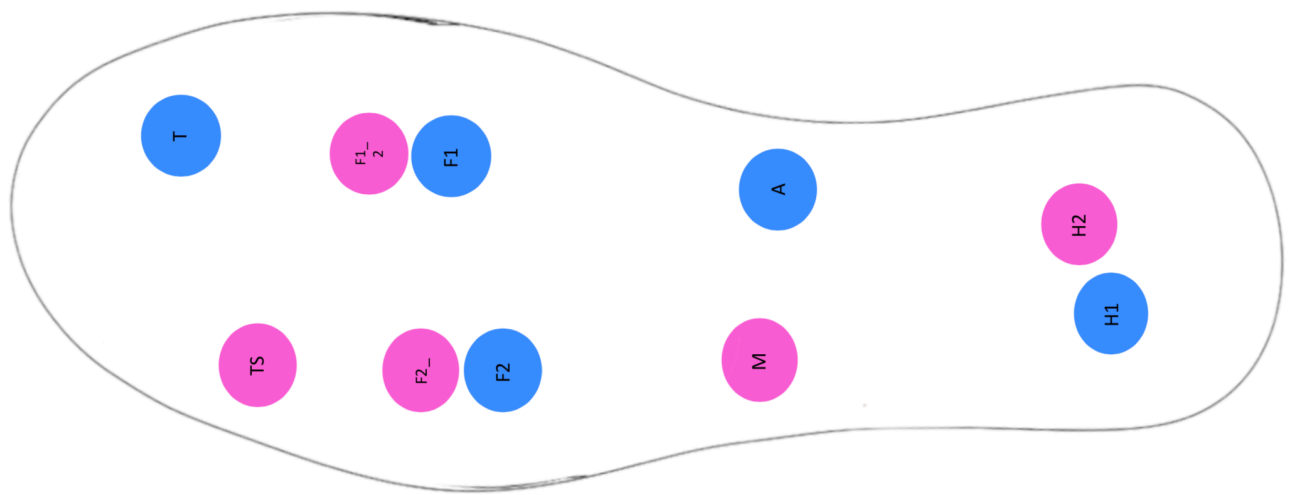
Stridalyzer INSIGHT Insoles

Structure & Sensor placement

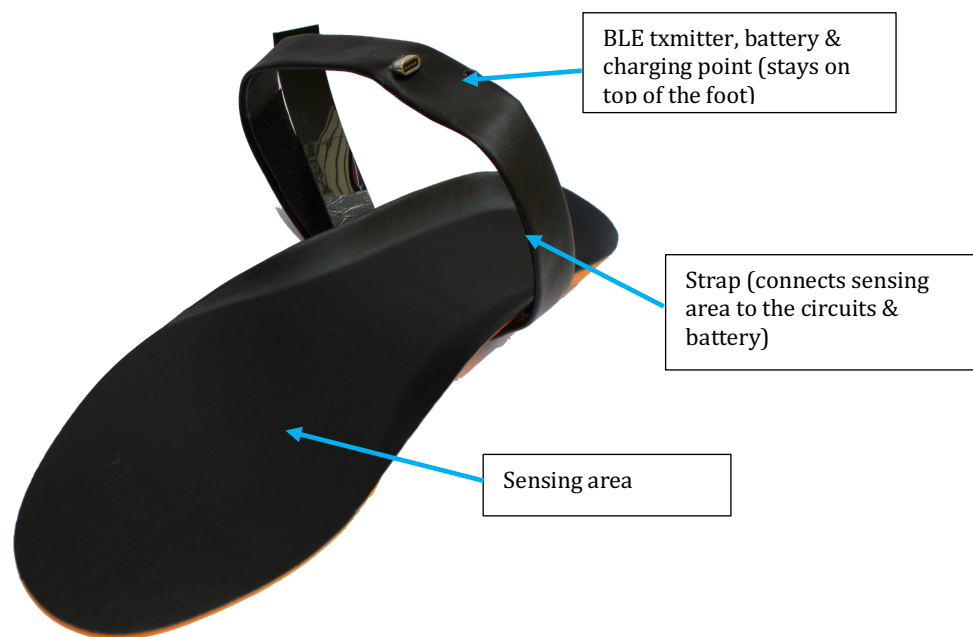
One IMU is placed in the arch region (for in-insole circuit build) or in the strap resting on top of foot (in external-circuit build).

Force Sensors are placed at 8 most important locations for posture and locomotion analysis (as determined through review of scientific literature):

- Hallux
- Toe #3
- Between 1st & 2nd MPJ [2 sensors]
- Center of 3rd-5th MPJ [2 sensors]
- Center of arch
- Center of midfoot
- Left of Heel
- Right of heel



Sensor Positions on insoles



Structure of INSIGHT Insoles

Insole & Sensor properties

Sensors used	<ul style="list-style-type: none"> • Piezo-resistive force sensors (10) • 6-axis Inertial Motion Sensor (Accelerometer + Gyro Combo) (1)
Gait properties measured	<ul style="list-style-type: none"> • Instantaneous forces at 8 key points • Foot Orientation • Foot vibration • Stride Length • Ground Contact Time • Stride Rate (Cadence) • Strike Type • Pronation Type • Overstriding/understriding • Weight Distribution (Body Balance) • Impact Forces • Pushoff forces • Loading Rate (dF/dt)
Sensing frequency	8 Hz (default), configurable from 1 Hz to 50 Hz
Insole thickness	Fully Flat: 4mm throughout With Heel cup: 4mm on toe, 5.5mm on heel
Minimal bending radius:	50mm
Insole Profile	Flat or with heel cup
Circuit Battery life	20 hours of continuous usage
Charging Mechanism	Micro-USB Charging
Water resistance	IP5 (low-volume water/sweat exposure resistant)
Compliance Standards	FCC, CE, RoHS
Insole weight	50g per pair
Insole sizes	23.5cm, 25.5cm, 27cm, 28.5cm, 30cm
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]
Communication Method	Sensor Insoles to App: Bluetooth LE 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