



**SENSIMAT**

**Sensimat Systems Inc.**

910 Rountree Dairy Rd. #13

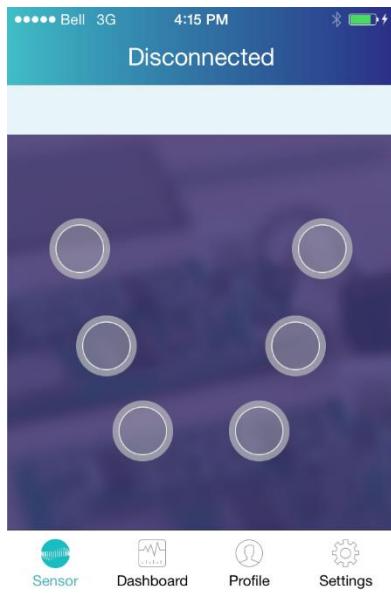
Woodbridge, ON, L4L5W5

416-807-6041 @sensimat

## SENSIMAT USER MANUAL V.2

The SENSIMAT is a thin mat with six force sensors installed underneath the existing wheelchair cushion. The SENSIMAT is not designed to touch the user. **Do not sit on the SENSIMAT directly**, always use your wheelchair cushion on top of the SENSIMAT.

The SENSIMAT is battery powered and is wirelessly connected to a mobile device via Bluetooth. Once at full capacity, the SENSIMAT can last for one week of continuous use.



The SENSIMAT sensor page is shown in Figure 1.

The top indicator bar will specify whether the mobile device is connected to the SENSIMAT.

In order to connect to the paired SENSIMAT, tap the top bar. Once a successful connection is established, the top bar will change to “Connected” and a battery icon, specifying the remaining battery power of the SENSIMAT, will appear at the top right side as shown in Fig.2

### Troubleshooting:

1. Make sure Bluetooth is turned on in iPhone settings.
2. Make sure the SENSIMAT is turned on (switch at back right)
3. Make sure the SENSIMAT is charged. Plug in if battery is low

Fig. 1: SENSIMAT sensor page. (SENSIMAT Disconnected)

The six circles on the sensor page represent the six force sensors the SENSIMAT. While facing the mobile device, the left circles correspond to the left side on the seat and the top of the screen corresponds to the front of the seat.

Once seated, the circles where force has been applied will turn blue. Note: All circles may not light up while seated. This all depends on your seating position and posture. Fig.3

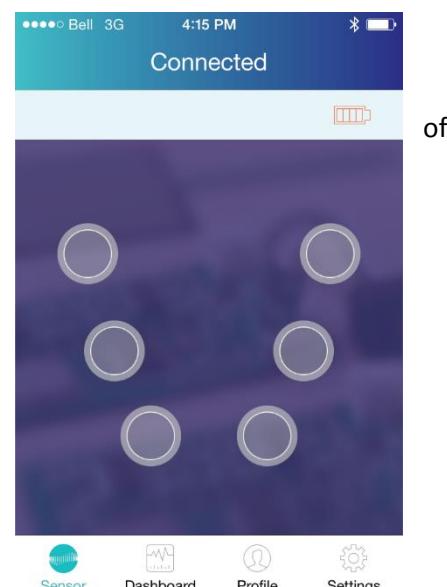


Fig.2: SENSIMAT sensor page.

(SENSIMAT Connected, low battery)



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After a set threshold of time is exceeded, the phone will vibrate, a sound will play and the colors of the sensors will change from blue to orange. If no pressure relief action is taken, the sequence will repeat and the colors of the sensors will change to red. Fig.4.

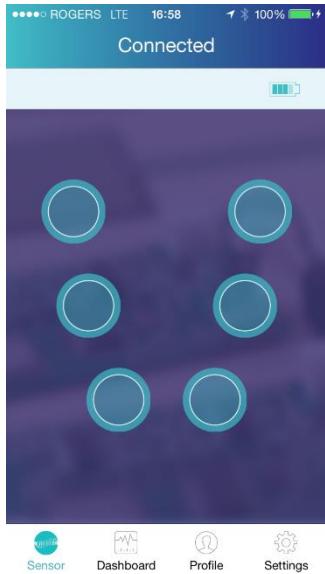


Fig.3: Sensors loaded

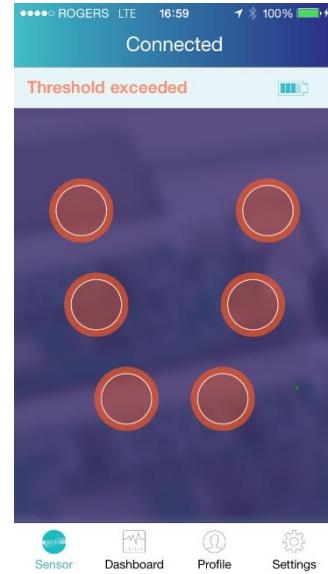


Fig.4: Threshold exceeded

Once the user performs a pressure relief, the SENSIMAT will detect the relief type (lean forward, lean left, lean right, lift off) and reset the colors back to blue.

Pressure reliefs are tracked and classified on the dashboard screen. (Fig.5) A graph of the last 5 hours shows the goal and the reliefs performed by the user.

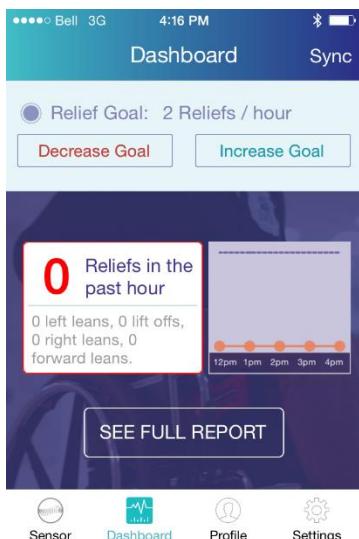


Fig. 5: Dashboard Screen

The user or therapist can set the desired hourly relief goal on the dashboard screen using the “Increase” or “Decrease” buttons at the top of the screen.

The user can upload the data to our servers by pressing the Sync button at the top right corner of the page. This is also performed automatically every 30 – 60 minutes, as long as the mobile device is connected to a WiFi network. Data is stored locally on the phone and is then cleared once a successful upload to the server is completed.



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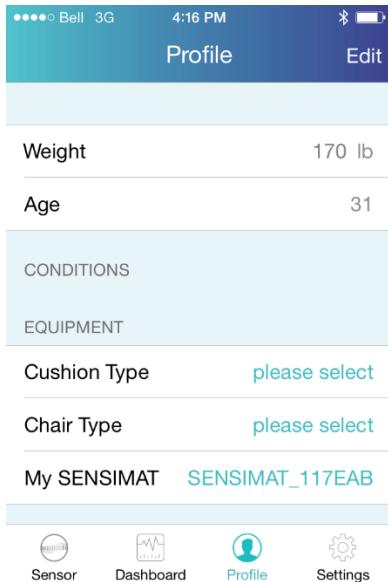
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The Profile screen keeps tracks of the users Weight, Age and equipment type. (Fig.6)



The user can press the Edit button at the top right corner and modify the information in the profile.

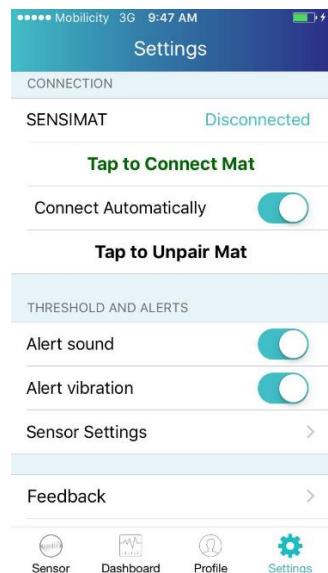
The most common manufacturers or manual and powered wheelchairs are listed as well as the most common manufacturers of wheelchair cushions.

If the cushion or chair is not listed in the list, the user can select "Other" to specify their equipment type if desired.

Fig. 6: Profile Screen

The Settings screen (Fig 7 and Fig 8) is used to control the pairing process between the mobile device and the SENSIMAT as well as setup user Thresholds and Alerts.

The user can use the toggle buttons in Fig. 7 to select whether they would like audible or vibratory alarm notifications.



The Sensor settings can be modified to setup the thresholds and alerts for each sensor.

1. Alert Alarm Interval: Time after which the alarm will activate.
2. Minimum Pressure: % of full pressure. Sets new 0 pressure limit
3. Maximum Threshold: % of full pressure. Alarm is actuated if pressure exceeds this value.

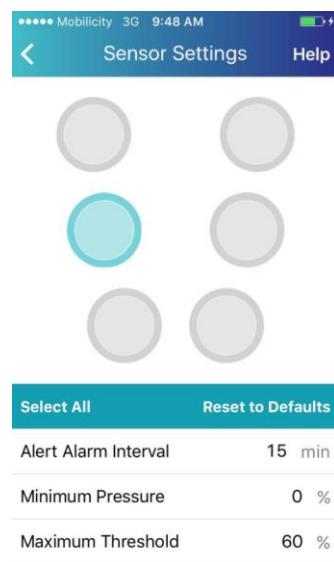


Fig. 7 Settings Page

Fig. 8: Sensors Settings

**FCC Caution:**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## **IC Caution:**

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.