# <u>Tactilus</u><sup>®</sup> Y-Series | Patient Movement Monitor™



Tactilus Patient Movement Monitor™ offers unprecedented ease of use and economy in the battle to mitigate pressure ulcers.

### Benefits of the system

- Vigilant Monitoring: The caregiver can quickly ascertain if a patient hasn't repositioned (either by self or via assistance) in a predetermined (as input into the software) period of minutes from an alarm indicator in the software.
- **Early Intervention:** When a time interval has passed of non-movement early intervention and action will help mitigate potential pressure ulcers.
- **Patient Education:** By including the patient in the ulcer prevention protocol they learn to be self-vigilant in the process.

#### About the Patient Movement Monitor System

Our Tactilus PMM software is Android based and communicates wirelessly with the pressure sensing mat. Tactilus PMM captures and assimilates data from 810 sensing points contained in the sensing mat into easy to interpret yet powerful colorized images with high pressure spots revealed as red and low pressure spots revealed as blue. The software's sophisticated algorithms carefully discern minor patient movements from actual "repositioning events" and filter out this noise so the caretaker is not being burdened with false negative alarms.

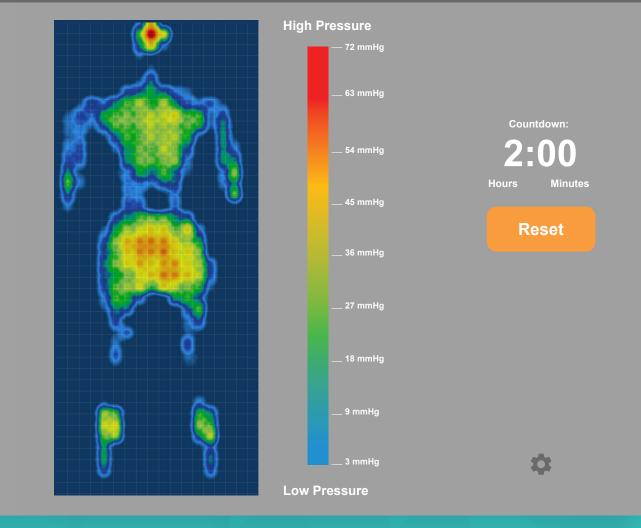
The pressure sensor mat resides below the mattress cover and remains transparent to the patient — they don't know it's there. Pressure sensor mats are extremely durable and meant for years of maintenance free use. They are made with hospital grade materials that are designed to resist incontinence incidents and exposure to disinfectant chemicals. The PMM uses a fabric based sensor that allows for greater breathability and conformability to enhance comfort.



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#### **Main Software Screen**





User sets all countdown alerts



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### **Software Screen - Caregiver Settings**

		General Settings	Advanced Settings
Home	Alarm:	Off 👥 On	
	Countdown Timer:	Off 🛑 On	
	Orientation:	Landscape 🛑 Portrait	
	Timer Duration:	1.5 hrs 👻	
	Alarm Volume:	Medium	
0			

General Settings allow you to disable the alarm, countdown timer, change orientation, change duration of timer, and alarm volume.

The PMM system contains various alarms to indicate when it's time to reposition a patient as well as whether there are concentrated areas of pressure that can quickly lead to pressure ulcer formation. Additionally, the PMM software is tuneable in sensitivity for each individual patient to minimize false-positive alarms.

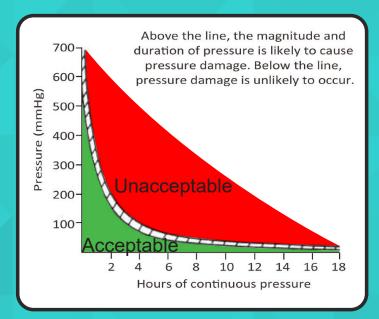


### A serious healthcare sector problem

Pressure ulcers are a major health issue for providers and kill more patients a year than any single cancer except lung cancer. Pressure ulcers, also called pressure injuries and in the vernacular, bedsores, are also costly to treat. Nationally, the U.S. spends about \$26.8 billion a year on treatment costs for pressure ulcers. The Agency for Healthcare Research and Quality data shows other hospital acquired conditions - such as adverse drug events and surgical site infections - have gone down, but the number of pressure ulcers continues to climb. This is because pressure ulcers are generally found only after a wound appears, and this can be too late to stop an infection from getting into the body.

A patient safety issue: "It's both more ethical and economical to prevent pressure ulcers than to treat them after the fact."

### **Effects of Pressure Over Time**



**Reswick-Rogers time-pressure curve** 

The Tactilus<sup>®</sup> PMM can help caregivers understand where the patient's skin may be most at-risk by highlighting where the skin may experience trauma due to pressure.

Real-time visual pressure profile images reveal to the caregiver the precise locations on the patient where "high pressure" spots exist and whey they have to be alleviated. The caregiver defined turn indicator lets the caregiver and/or patient know when it's time to reposition.



### **Economics**

#### Patient Pressure Mapping Improves Quality of Care While Reducing Costs

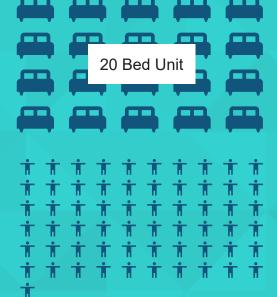


A 20 bed unit allows for 7,300 patient days. The average LOS is 4.8 days and thus yearly there would be 1,521 individual patients.

Nationwide 4% of patients suffer pressure ulcers. Suggesting that in this 20 bed example 61 patients would develop pressure ulcers. The average cost to resolve a pressure ulcer is US \$10,700.

Suggesting a HAPU cost to be US \$652,700 for this 20 unit example.

Even just a 25% mitigation in this rate would yield costs savings of US \$163,175 per year.



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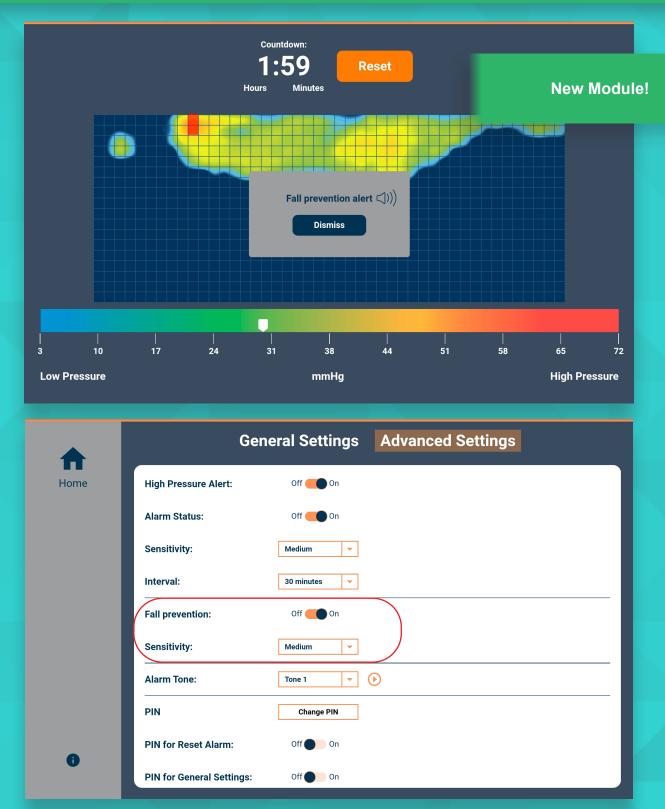


#### US \$163,175 per year



## **Potential Fall Indicator**

The new Potential Fall Indicator (PFI) module sounds an alarm to indicate when a patient is near the edge of the mattress for a sustained period of time. "4.95% of falls from hospital beds result in serious injury".<sup>1</sup>



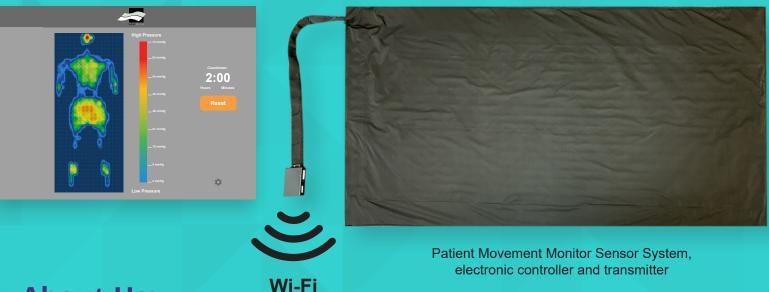
<sup>1</sup> Understanding the Prevalence of Inpatient Falls Associated With Toileting in Adult Acute Care Settings, Tzeng, Huey-Ming PhD, RN, January-March 2010.



# What's Included

#### Android Software

B Bed Sensor and Electronics



### **About Us:**

The Tactilus Patient Movement Monitor is the culmination of over 30 years of work in the area of tactile surface sensing. With our extensive experience in both scientific and medical markets we're able to offer a system that provides real-time data to your patient caretakers that indicates when a patient hasn't shifted position in a predetermined time period. Sensor Products Inc. is a world leader in the niche field of tactile surface pressure and temperature sensors. The company was founded in 1990. Our mission has been, and will be to be the leader in offering top quality high precision systems for collecting and presenting medical and scientific surface pressure mapping data. Sensor Products maintains CE marking, and ISO 13485 certification.

System Specifications			
Technology	Piezoresistive fabric		
Connection	Wireless		
Pressure Range Optimization	0 - 2 PSI (5-103 mmHg)		
Number of Sensing Points	810		
Total Sensing Area	64" x 25.6" (162.5 cm x 65 cm)		
Total Area	69" x 35.4" (176 cm x 90 cm)		
Matrix	18 x 45		
Scan Speed	1 frame per second		



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