

FUTURE SHAPE



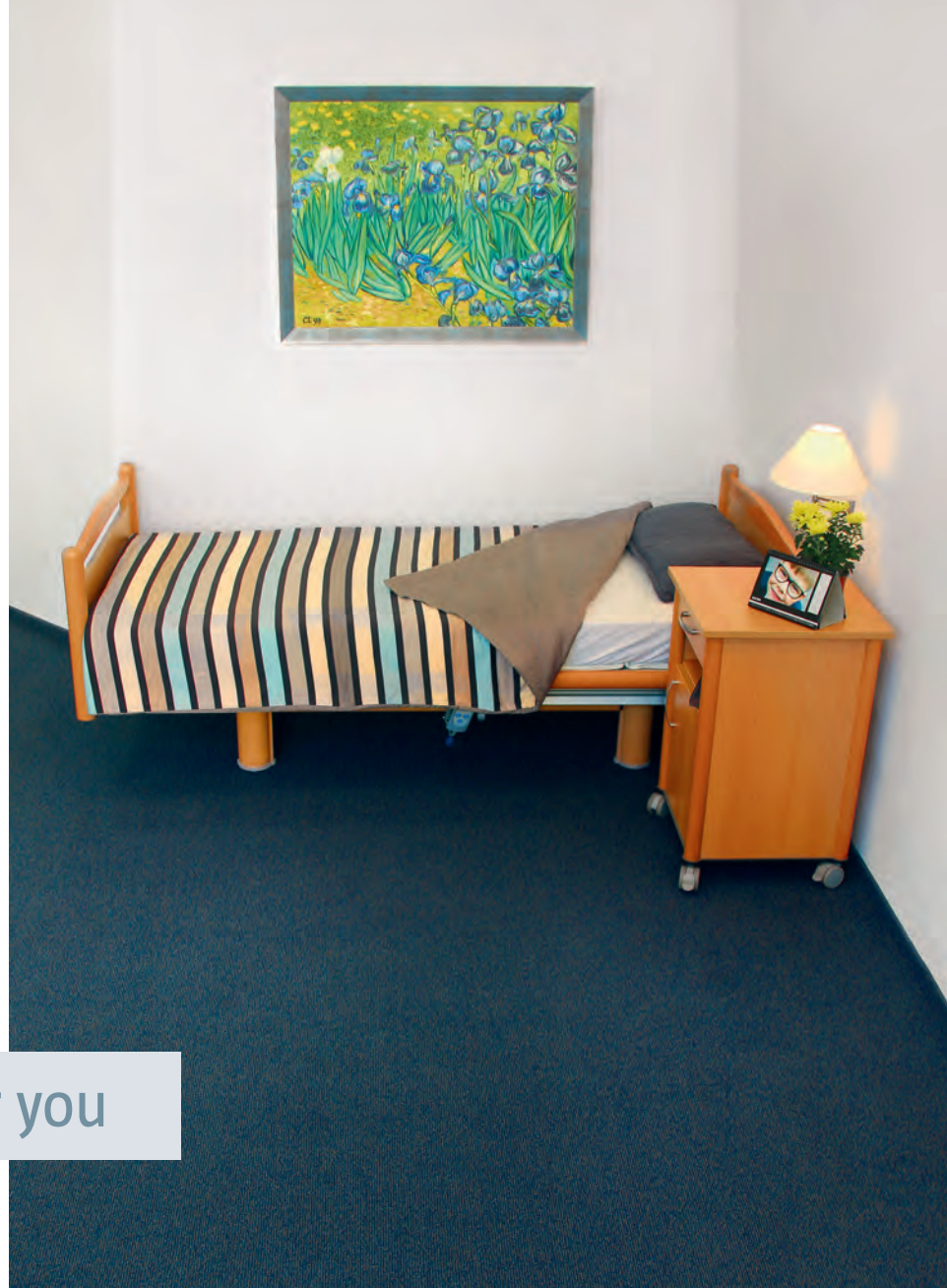
SensFloor[®] Care

The future of care begins now

Sensitive floor for care facilities and hospitals

Imagine a technology that allows your nurses to keep track of the ward at all times, even in hectic times. A system that reliably alerts when a resident has fallen or a person at risk of falling stands up. A solution that offers safety and comfort, recognizes changes in the patient's health status, keeps the family informed and facilitates care documentation...

...and now imagine that this technology also respects the privacy of your residents – invisibly integrated into the floor. This is exactly where your fantasy ends and the reality of the SensFloor® system begins!



SensFloor® cares for you

The entire ward at one glance



Overview of the whole ward: The alarm has been triggered in room 2 (red) – someone has just fallen here. In rooms 6 and 9 (blue) residents are active, in the other rooms (green) there is no activity.

The room overview on the SensFloor® ward terminal is a major relief for your staff in the hectic daily nursing routine. This overview is especially helpful at night, when the ward is sparsely occupied. The nursing staff recognizes at a glance what is happening on the ward: In which rooms does someone need help, where are residents active, who is currently sleeping or is there anybody in the rooms.

In an emergency situation, you manage to be on site promptly and save time. Indeed, you can optimize your routes based on the activity overview. Falls and all movements are automatically documented by the system.

... and your residents feel safe with you.

- Overview of the entire ward
- Ability to react quickly to acute events
- Optimization of staff routes

Fall detection and prevention



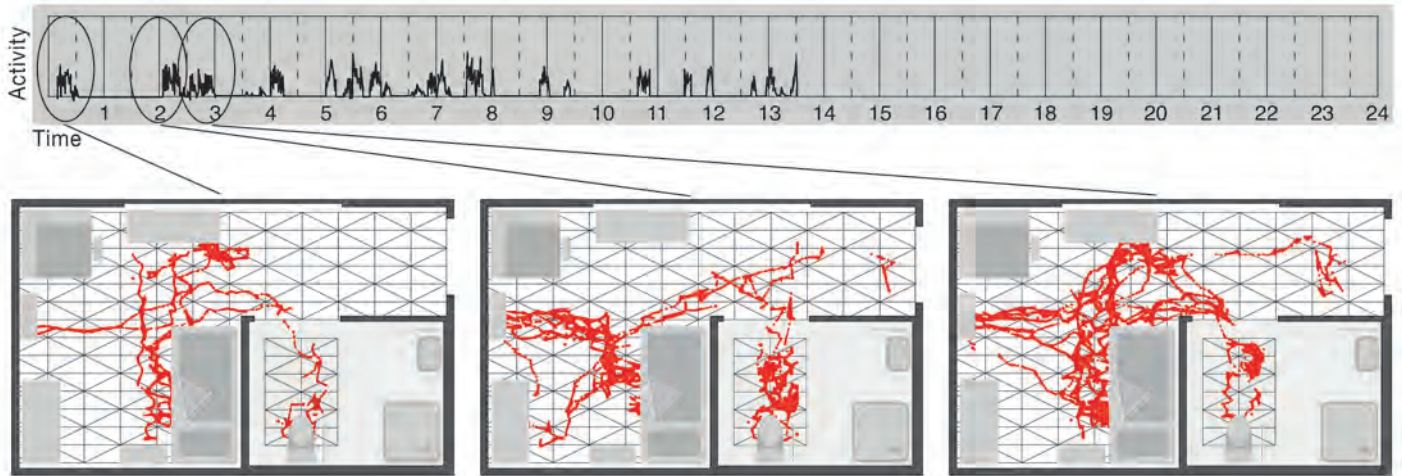
A resident has fallen. Now every second counts - a quick reaction can save lives. The sensor floor in the room immediately detects that someone has fallen and alerts the care personnel. Your nursing staff receives a warning either via mobile phone, the ward terminal or the nurse call system and can provide immediate help.

For senior citizens, a fall with a subsequent stay in hospital usually leads to a deterioration of health conditions. Therefore, the best way to deal with falls is to avoid them. As soon as a resident wants to leave the bed at night and approaches the floor with his foot, the SensFloor® switches on the orientation light. The light only turns off when the resident is safely back in bed.

Each room function can be adapted to the residents' individual requirements. In some rooms, the nursing staff would like to be notified when a resident at risk of falling leaves his bed at night. In other rooms, it should be reported if the person stays in the bathroom for an unusually long time.

- Real-time fall alarm
- Activity alert for patients at risk of falls
- Presence-controlled lighting

Health status assessment



A resident's night activities: Getting up several times and frequent visits to the toilet – visualization of the detailed itineraries in three different time periods selected here.

With the intelligent SensFloor® you can get much more than „just“ falls and movements reported. A look at a resident's activities during the day gives you valuable information about his or her state of health: Is the resident restless? Does he visit the toilet particularly often? How long does he sleep and how often does he get up at night? Are medications optimally dosed? Especially for residents suffering from dementia, this is a helpful source to learn more about their well-being.

The patient's activity records are also a valuable basis for the attending doctors in neurology, geriatrics and psychiatry to assess the state of health. A long-term evaluation over several months can provide additional valuable information on the reasons for a deteriorating health. Treatment success can also be measured.

- Keeping record of activities
- Evaluating movement profiles and assessing health status
- Analysing sleep behaviour
- Measuring treatment success

SensFloor fits any infrastructure...

SensFloor			SensFloor Transceiver		Customer Specific Solution			
Location	Time	Intensity	Based on Raspberry Pi 3		Art	Games	Security	Exhibitions
			<p>BASIC FUNCTIONS</p> <ul style="list-style-type: none"> PRESENCE DIRECTION VELOCITY PATHWAYS COUNTING PERSON LYING SELF TEST 					

The core of the SensFloor system is a mere 3 mm thick underlay, which is laid like an impact noise insulation under the actual flooring. A dense network of capacitive proximity sensors is integrated in the underlay. The sensors detect that a person is on the floor through changes in the electric field.

The sensor data from the floor is transmitted wirelessly to a SensFloor receiver in the same room. Subsequently the receiver calculates the movement of the persons and recognizes emergency situations. Many different interfaces allow a connection to any existing infrastructure, whether lighting control system or patient call system.

The activity data is stored automatically in the resident's room only and just for 48 hours. However, authorized nursing staff can access the data via LAN or WLAN – on a tablet, smartphone or PC, as needed – at any time, from any place!

...and any flooring



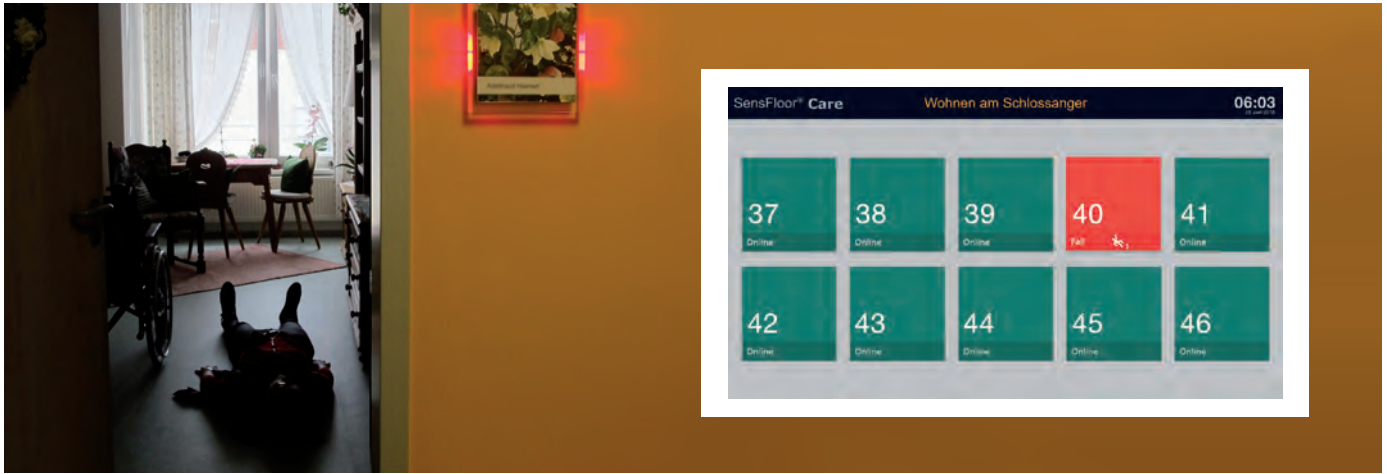
With up to 32 sensor areas per m², the SensFloor® underlay with integrated electronics detects the activities of persons under almost any floor covering.

Of course, most care facilities have PVC flooring. Thanks to the capacitive measurement technology of the SensFloor® system, no concessions have to be made regarding the floor design: Carpet, laminate, parquet and even stone tiles are also suitable - with or without skirting boards!

No mechanical pressure is necessary to determine the exact location, walking direction and even the gait pattern of the resident. A person lying on the ground can be safely detected, even in the case of a fall with no major impact. Even spilled liquids are detected and their location is reported to the staff in order to prevent falls on a slippery ground.

- Many customisable functions
- Flexible in terms of interface and infrastructure
- Any floor covering and floor plan possible
- Robust and durable system

Daily use of SensFloor Care



Fall in room 40 – within seconds a member of the nursing staff is in the room

Höhenkirchen-Siegertsbrunn, southeast of Munich, in the senior citizen centre „Wohnen am Schlossanger“, 6 o'clock in the morning: On the monitor in the nurses' room, the colour of a room suddenly changes to red. At the same time an alarm goes off on Ingrid Till's mobile phone: „Fall in room 40“ appears on the display. Within seconds, the nurse is up, sees the name tag flashing in red outside in the corridor and helps the senior resident back on her feet again.

In 2015, the senior citizen centre „Wohnen am Schlossanger“ has played a pioneering role in terms of security. Ten of the 72 rooms were equipped with SensFloor - the refit with SensFloor in the rooms including bathrooms was completed quickly in only two to three days per room.

- Ten rooms and bathrooms equipped with SensFloor since November 2015
- The system alerts in the event of a fall and gives staff an overview of current activities
- Supports physicians with additional information

Living at Schlossanger



Senior citizen centre „Wohnen am Schlossanger“ in Höhenkirchen-Siegertsbrunn near Munich

The care home was already working with the 'minos' security technology, which could seamlessly be connected to the SensFloor system. „It was important for us to have a reliable alarm system. Our nursing staff quickly got used to the sensor floor, the system is really easy to use,“ says nursing home manager Kaleve. Ingrid Till adds: „Especially the touch screen monitor in the nurses' room is a great help for us.“ At a glance the nursing staff knows the activity status in the adjacent rooms and whether any help is needed.

The care staff of the senior citizen care home in Höhenkirchen-Siegertsbrunn really appreciate this new technology and wouldn't like to miss SensFloor anymore. They would rather prefer to have it in each room, as more and more senior citizens are at risk of falling. Moreover, the sensor floor also makes the occupants feel secure - initial concerns have long disappeared.



Irmgard Kaleve, care home manager: „With the SensFloor, elderly people can retain their independence for much longer without having to be constantly supervised or even fixed. If someone wants to equip a retirement or nursing home, I would strongly recommend to include SensFloor in the plans right from the start“.

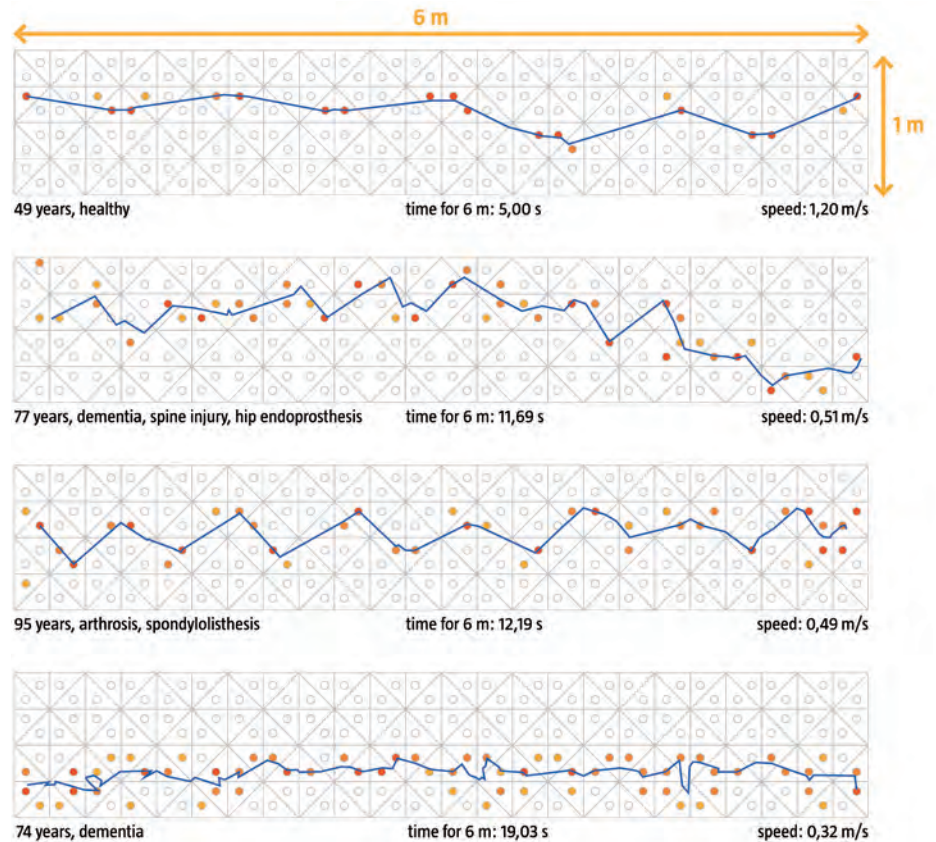
The next step: gait recording

If you wish, you can even go one step further. Indeed, with the same sensor technology we have developed a solution for assessing the risk of falling:

SensFloor® Gait

The visualization of a gait pattern enables you to detect that a person is walking in an unstable manner, which is an indication of risk of falling. Such gait patterns are particularly interesting in long-term comparisons: You recognize deteriorations timely, get indications of neurological diseases and can quantify the effectiveness of physiotherapy and medication.

It is important though that you already have a particularly high-resolution SensFloor® installed in the designated area (usually 6m x 0.75m). The functions of SensFloor® Gait for gait recording can then be added retrospectively.



- Early recognition of risk of falling
- Recording of changes over the time
- Indication of neurological diseases

About us



Future-Shape GmbH has many years of experience in the development of sensor technology, especially for use in nursing homes and hospitals. The founder, Christl Lauterbach gained more than 25 years of experience in research at Infineon and Siemens before setting up her own company Future-Shape in 2005. The SensFloor® system won the Innovation Award of the Federal Ministry of Economics and Energy for the second time in 2017 and is in use in several countries. The company is privately owned and operates independently and without participation.

The large surface SensFloor® system offers a wide range of potential applications in the areas of care, rehabilitation, retail, security and multimedia. SensFloor® Care was specially conceived for the requirements of the care sector.

With SensFloor® Gait, the gait pattern is recorded. Doctors in the fields of rehabilitation, neurology or geriatrics can thus assess the degree of impairment and evaluate treatment measures.

SensFloor® Trace, on the other hand, is particularly interesting for use in retail and trade fairs: Streams of visitors are recorded, visualized and can be evaluated in detail.

- Many years of experience
- Winner of the German Federal Award 2017
- Made in Germany

More information?

We would be happy to advise you on your individual project



Reading about our system is one thing – testing it „live“ is something else!

Please feel free to contact us!

We look forward to welcoming you on our premises and discussing with you about your individual requirements and wishes.

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