Health technology and Sensors

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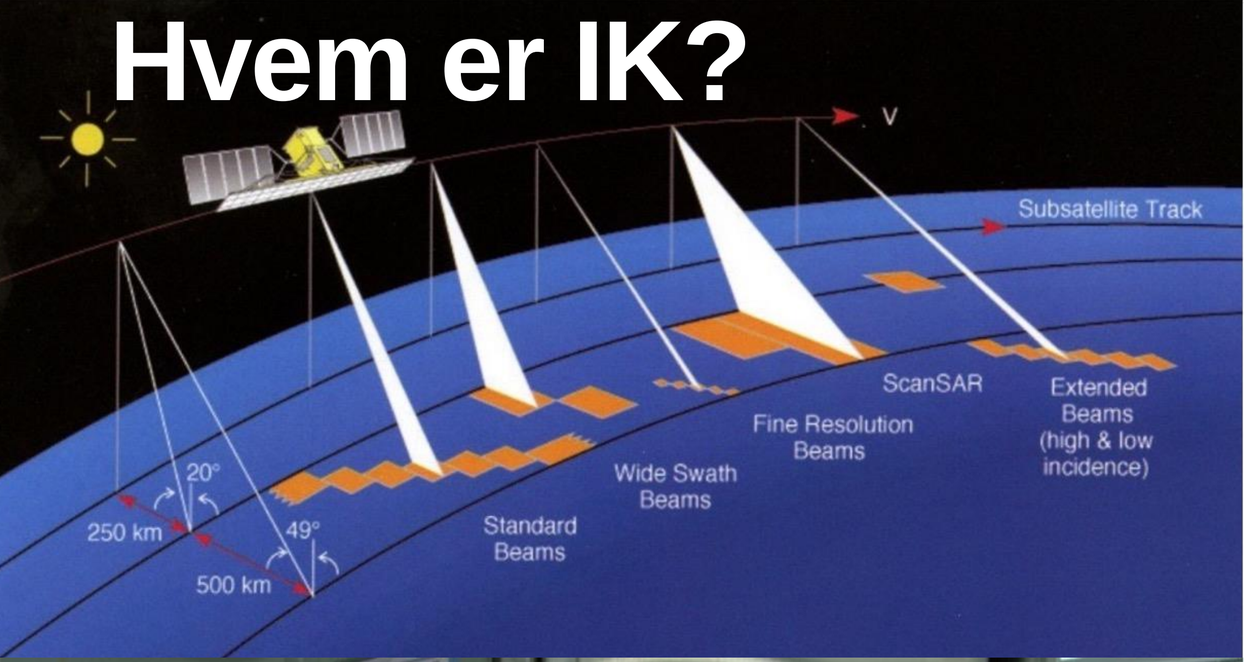
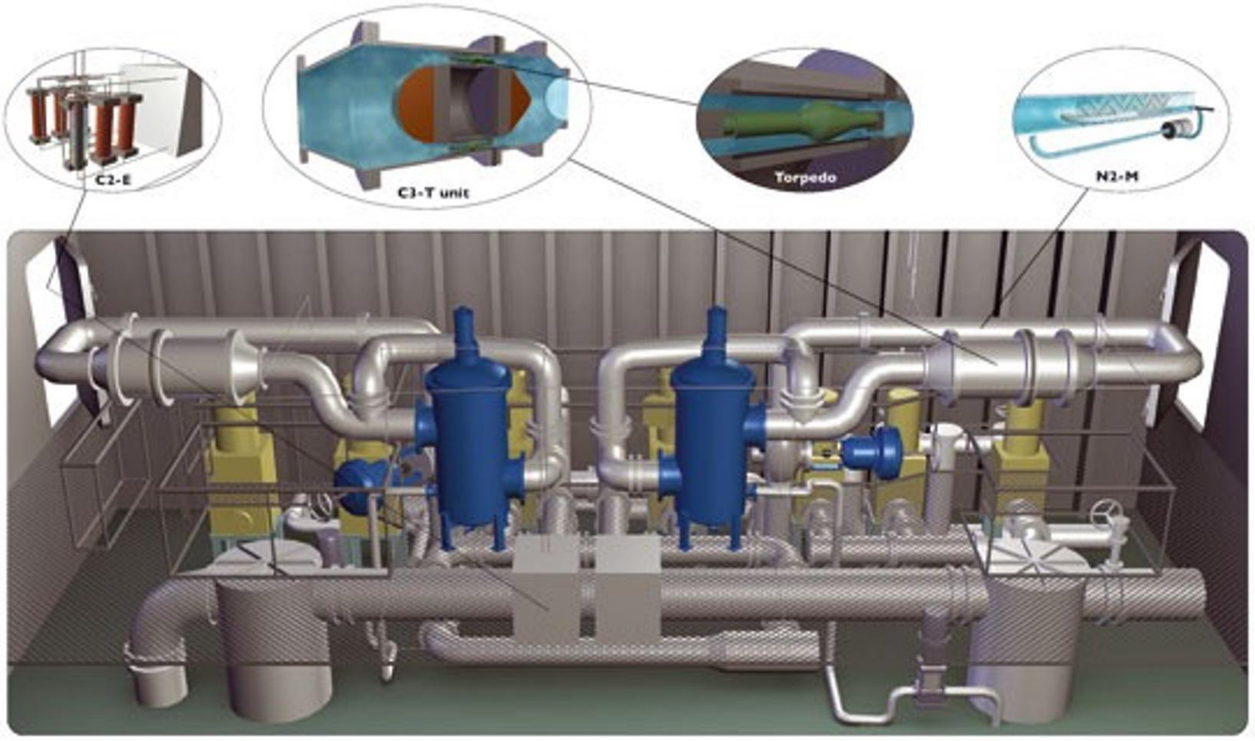
Hvem er IK?


V
Subsatellite Track
ScanSAR
Extended Beams (high & low incidence)
Fine Resolution Beams
Wide Swath Beams
Standard Beams
20°
49°
250 km
500 km

QVision


C2-E
C3-T unit
Torpedo
N2-M

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KraftPlugg

Plugges enkelt inn i strømmåleren og strømmer forbruket direkte til mobilen din.

Definition of a sensor

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Sensor: A device which detects or measures a physical property and records, indicates, or otherwise responds to it.

Expensive sensor

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Cheap sensor

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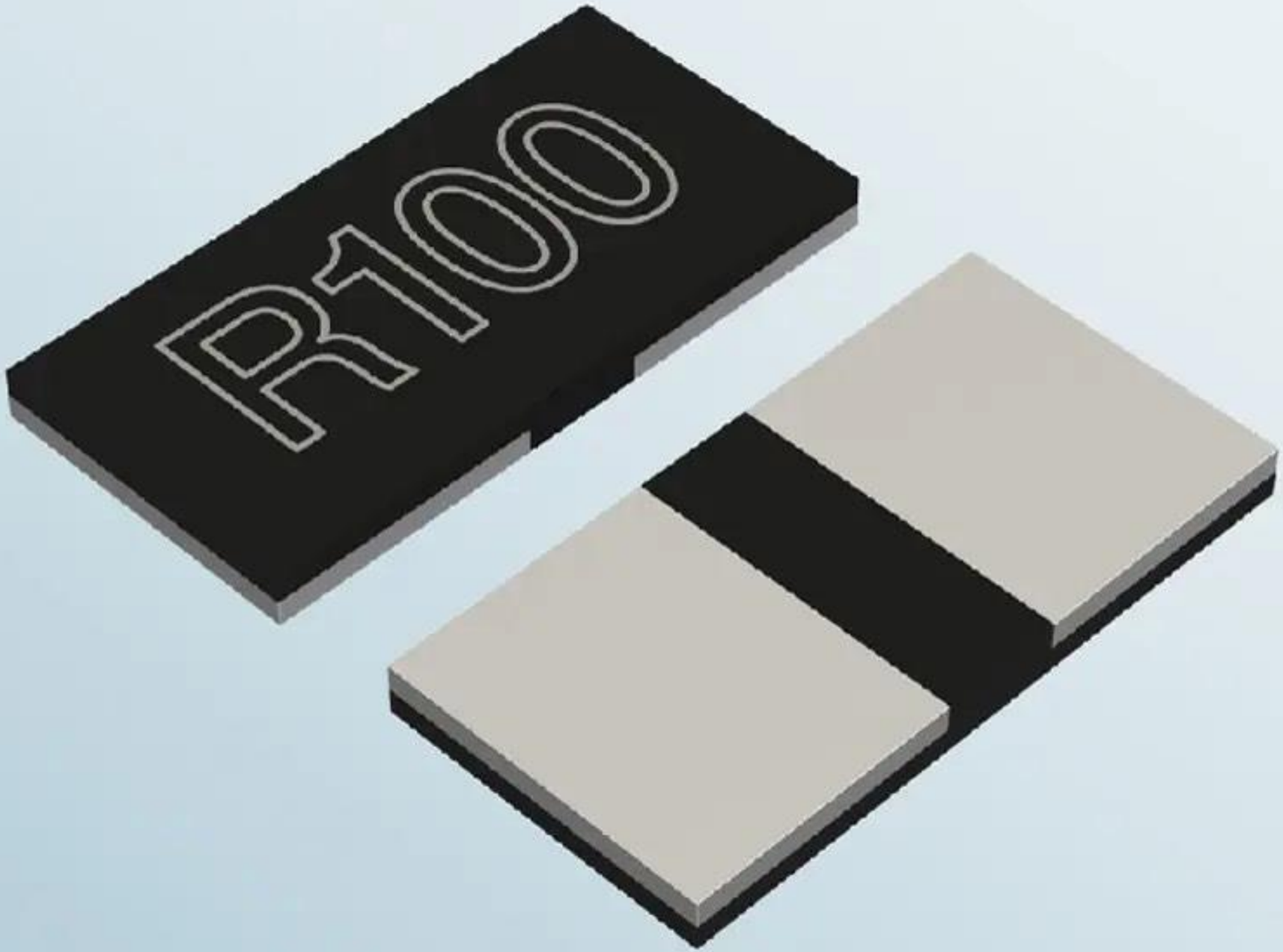

Shunt resistor to measure current

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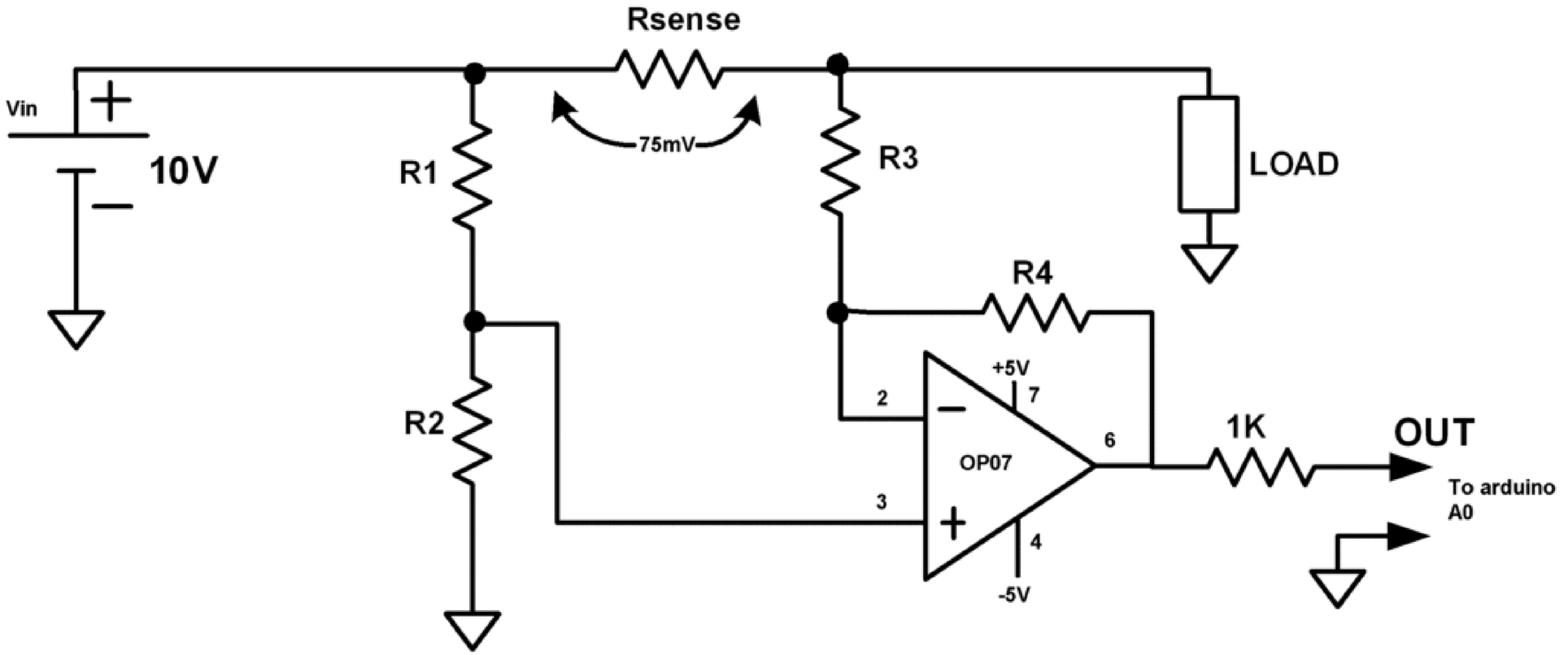

Shunt resistor to measure current

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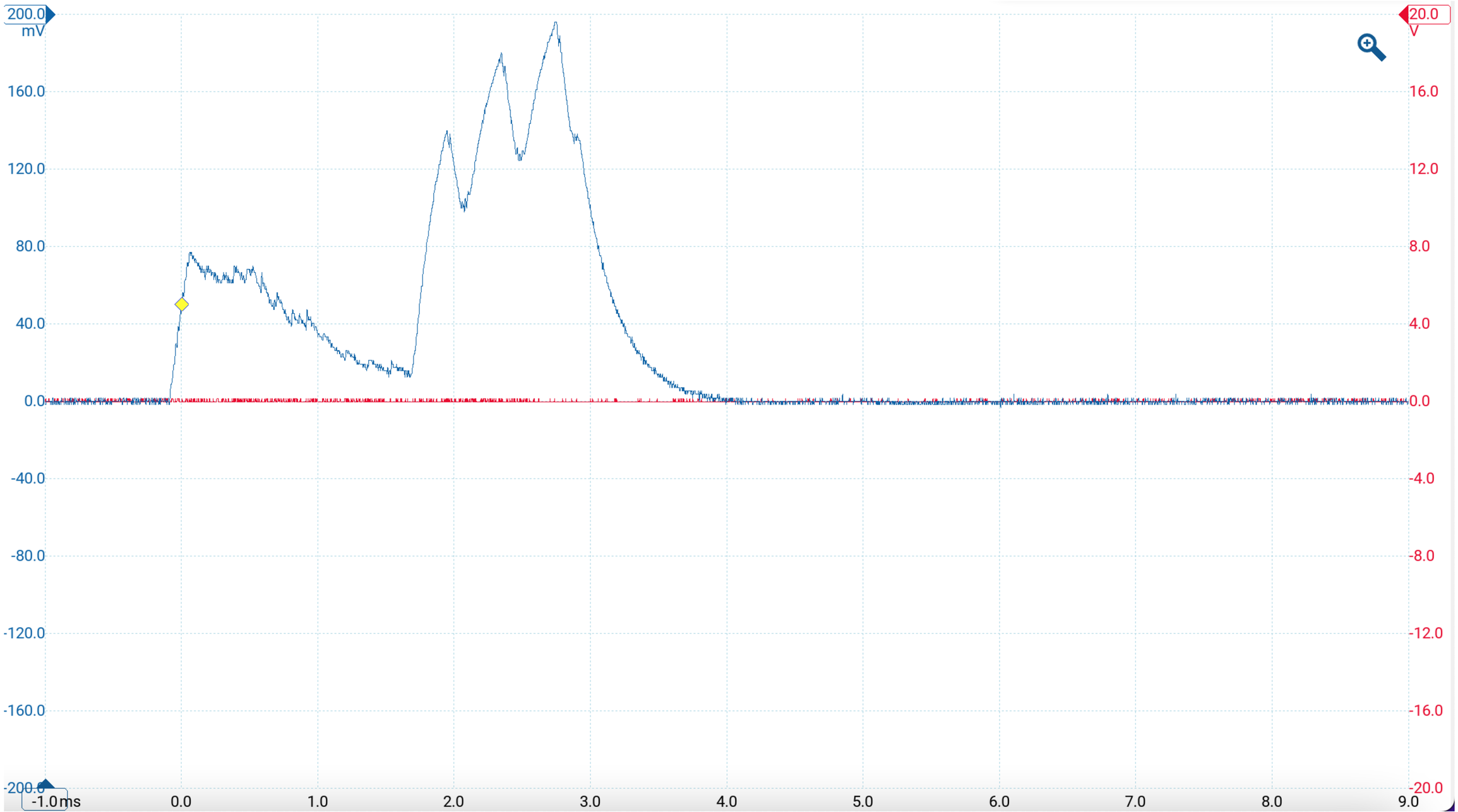

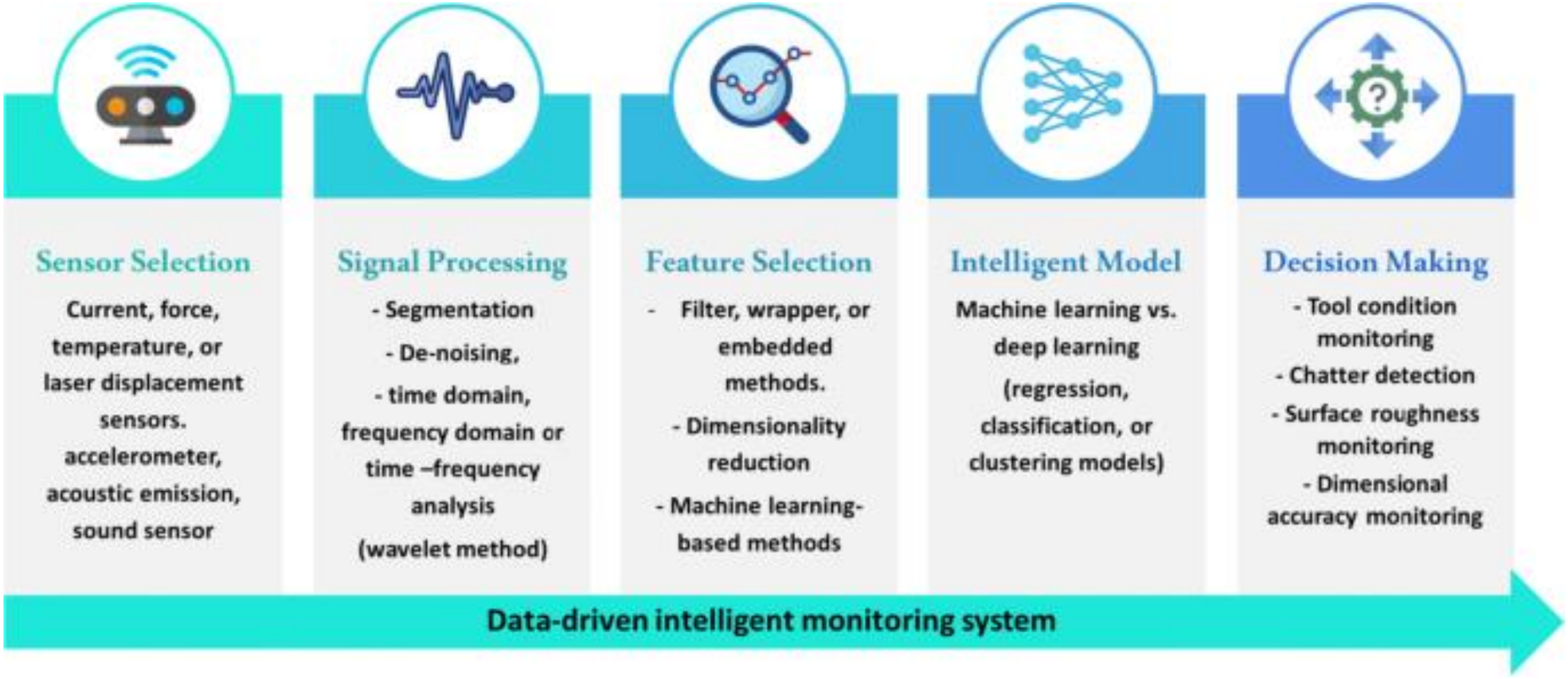
Sensor Selection
Current, force, temperature, or laser displacement sensors. accelerometer, acoustic emission, sound sensor
Signal Processing
- Segmentation
- De-noising,
- time domain, frequency domain or time –frequency analysis
(wavelet method)
Feature Selection
- Filter, wrapper, or embedded methods.
- Dimensionality reduction
- Machine learning-based methods
Intelligent Model
Machine learning vs. deep learning
(regression, classification, or clustering models)
Decision Making
- Tool condition monitoring
- Chatter detection
- Surface roughness monitoring
- Dimensional accuracy monitoring
Data-driven intelligent monitoring system

Example: Three axis accelerometer

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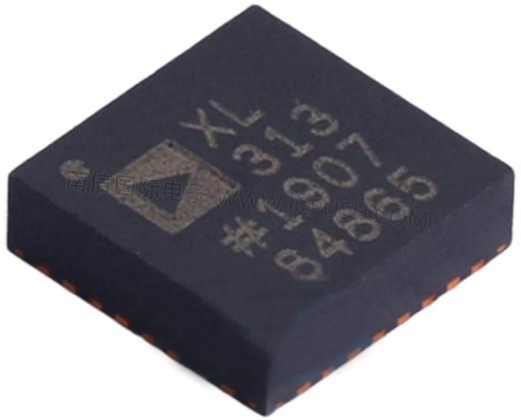

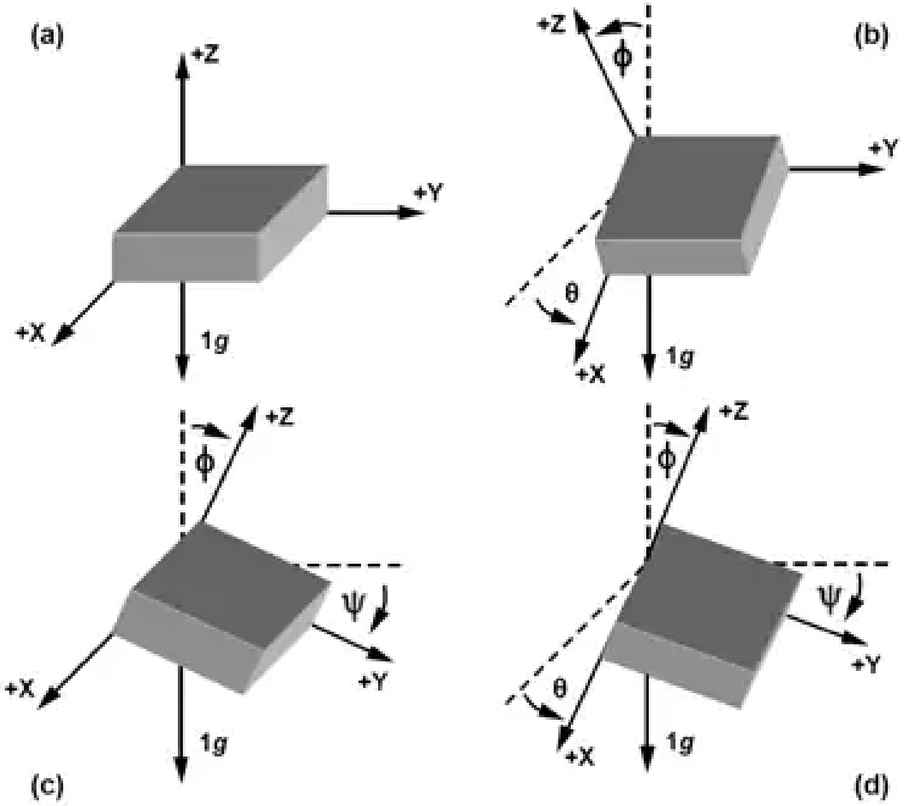

Practical use of three axis accelerometer

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Practical use of three axis accelerometer

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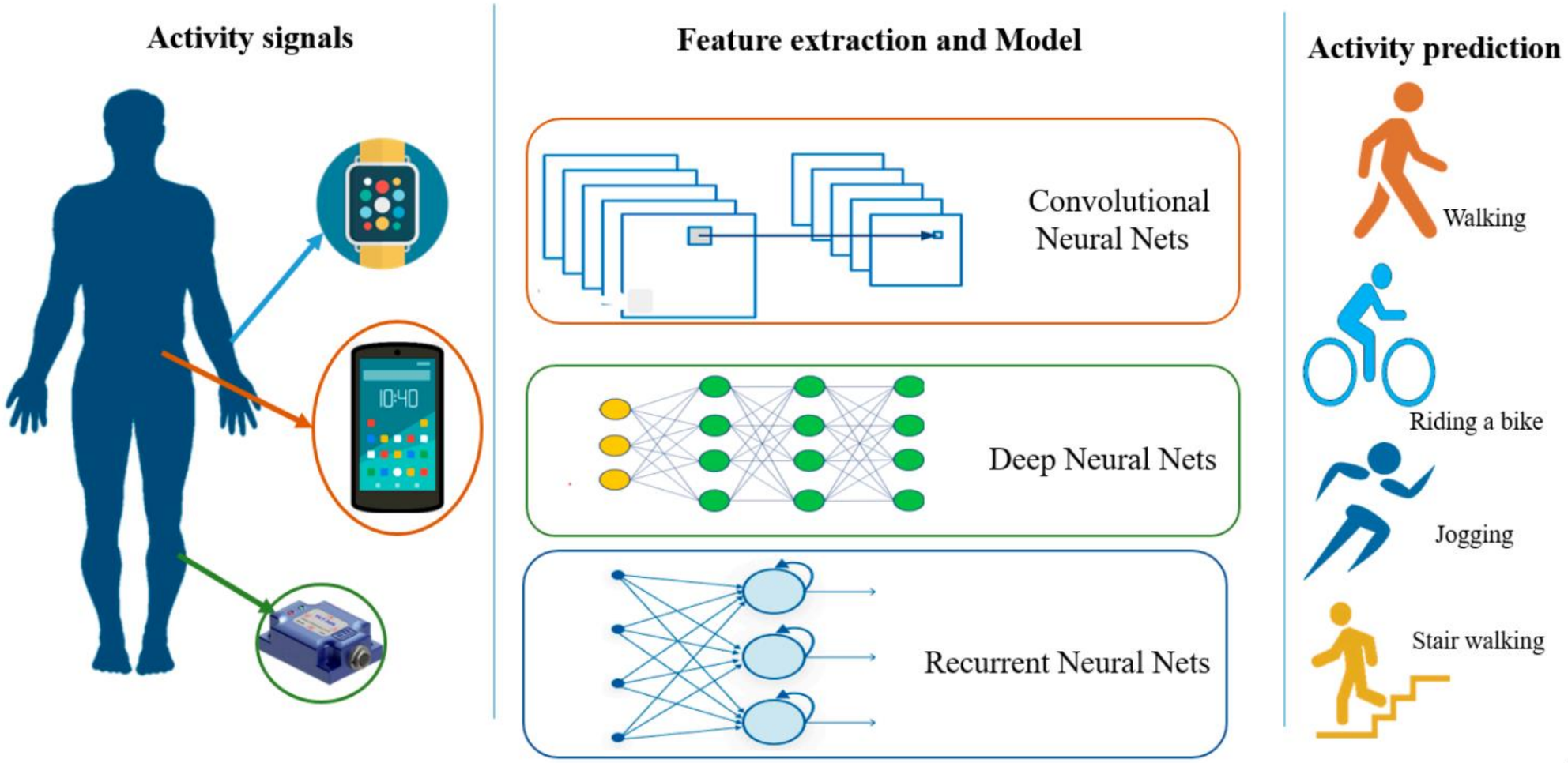

Medical use of three axis accelerometer

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TIDEWAVE™

What problem to solve?

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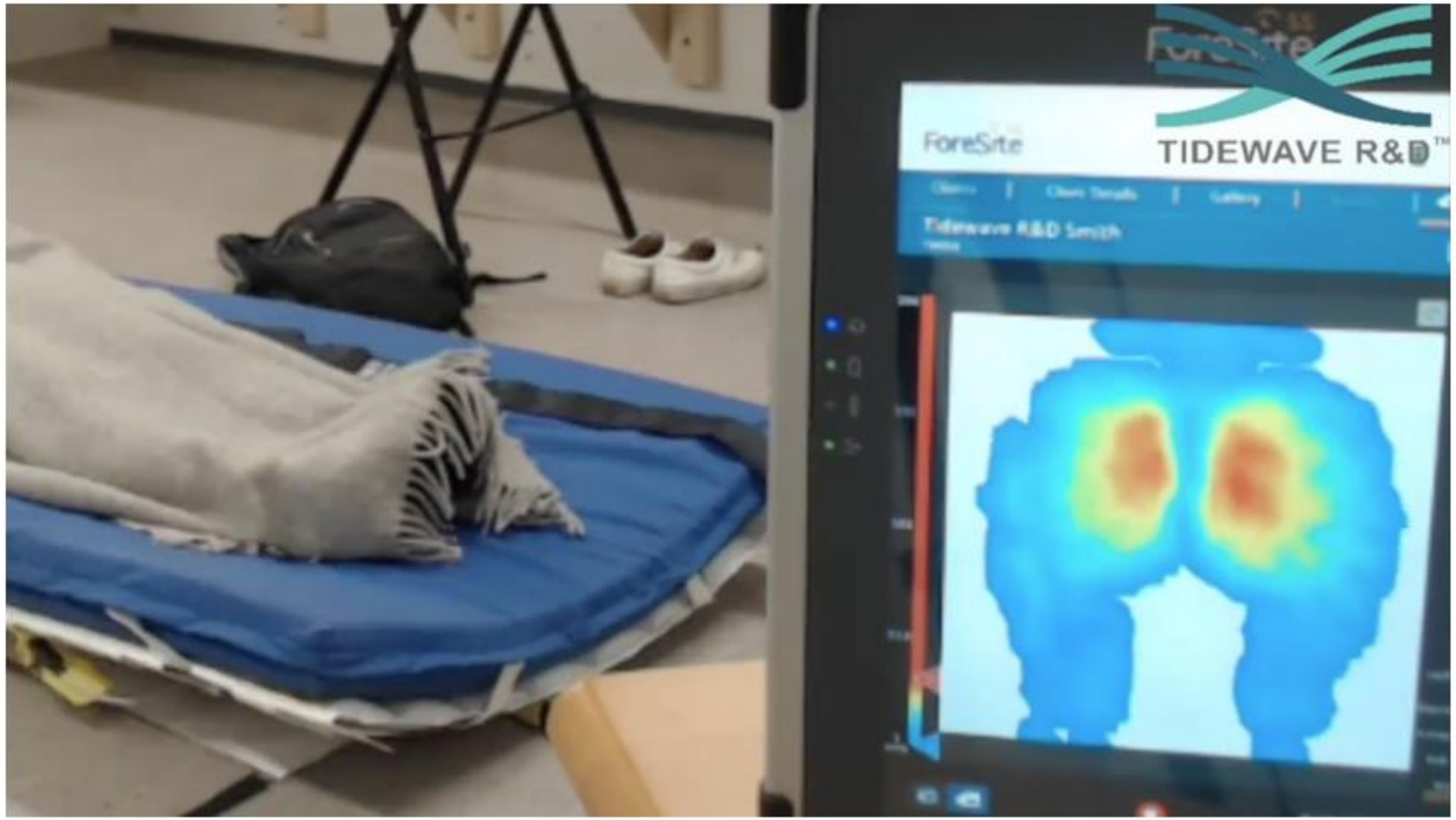
– En av fem pasienter får liggesår, både i Europa og Norge, sier Elen Haugs Langvik (27), én av gründerne bak Tidewave R&D.



Why three axis accelerometer?

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Medical use of three axis accelerometer

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Camera as a sensor

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Camera as a sensor: object recognition

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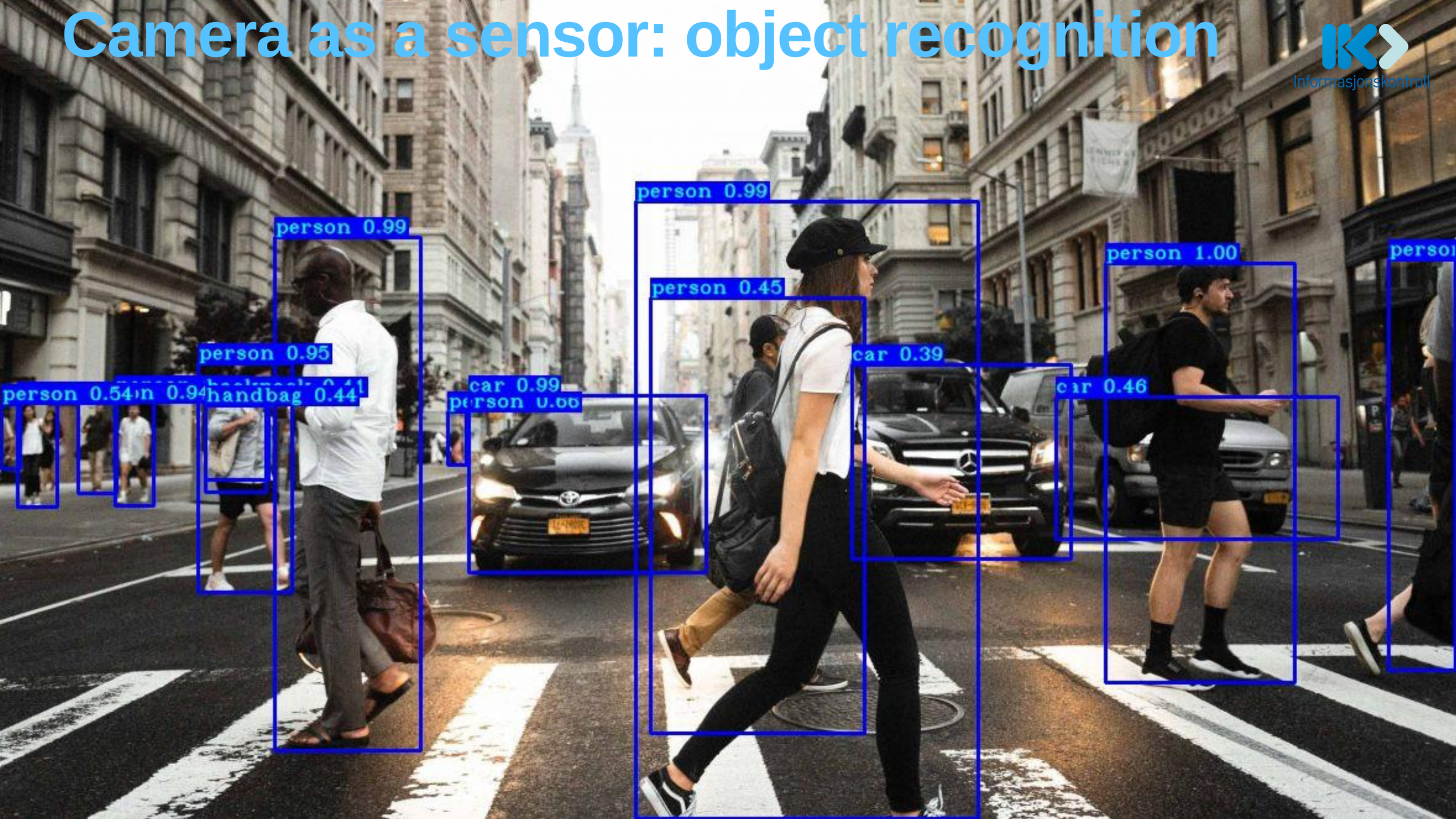

Example: Use of cameras in health tech.

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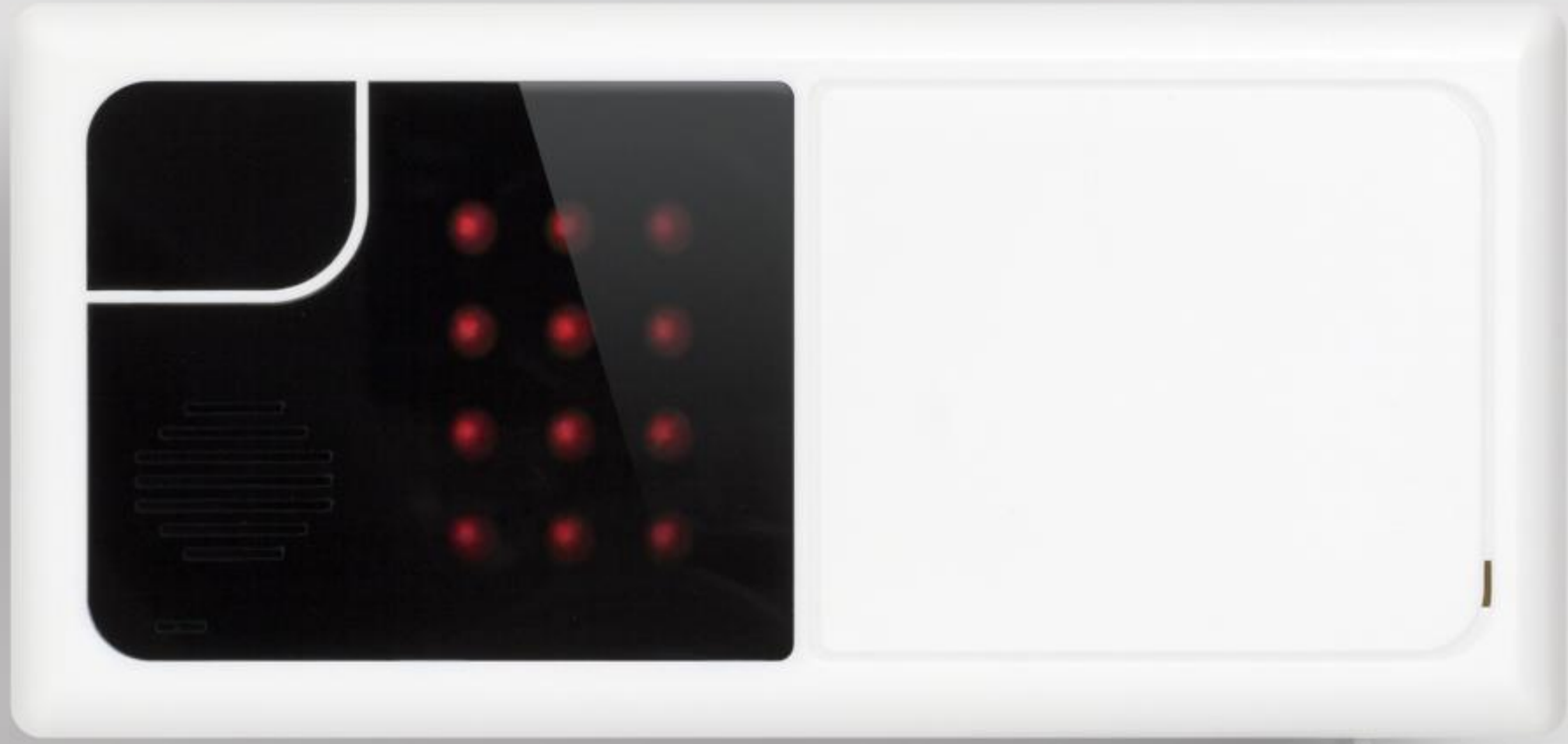

RoomMate®

Example: Use of cameras in health tech.

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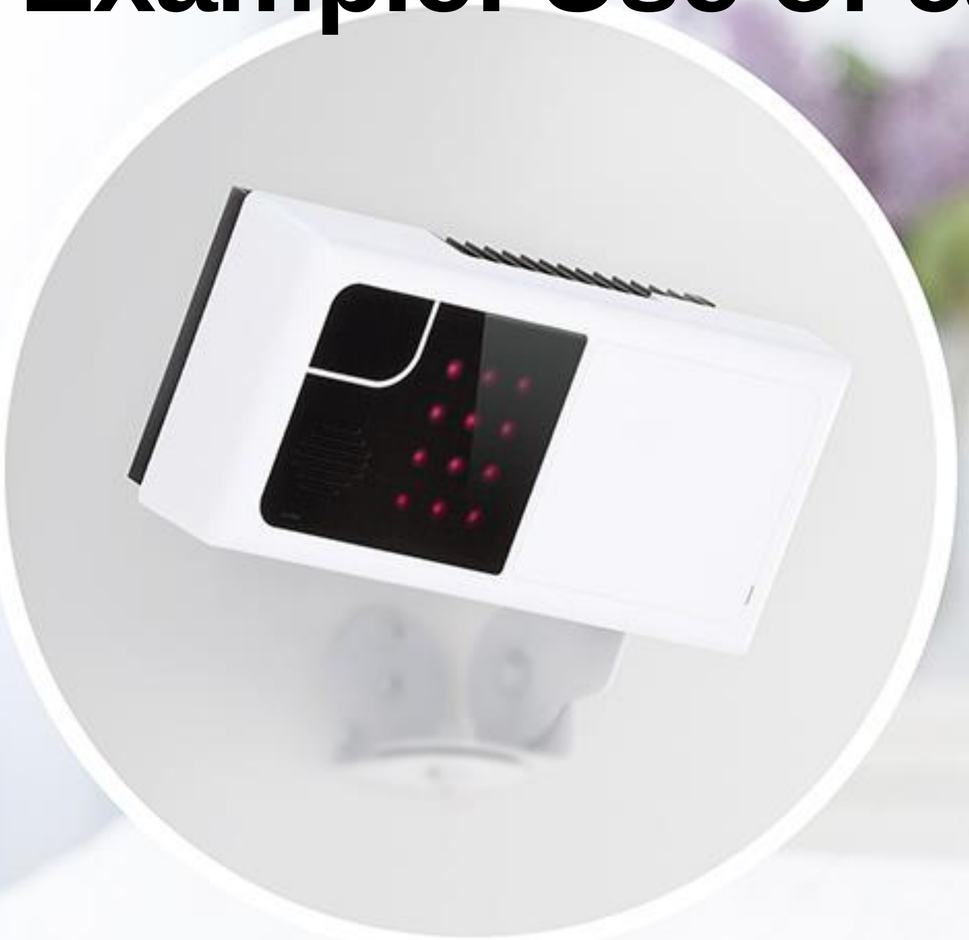

Non intrusive use of cameras

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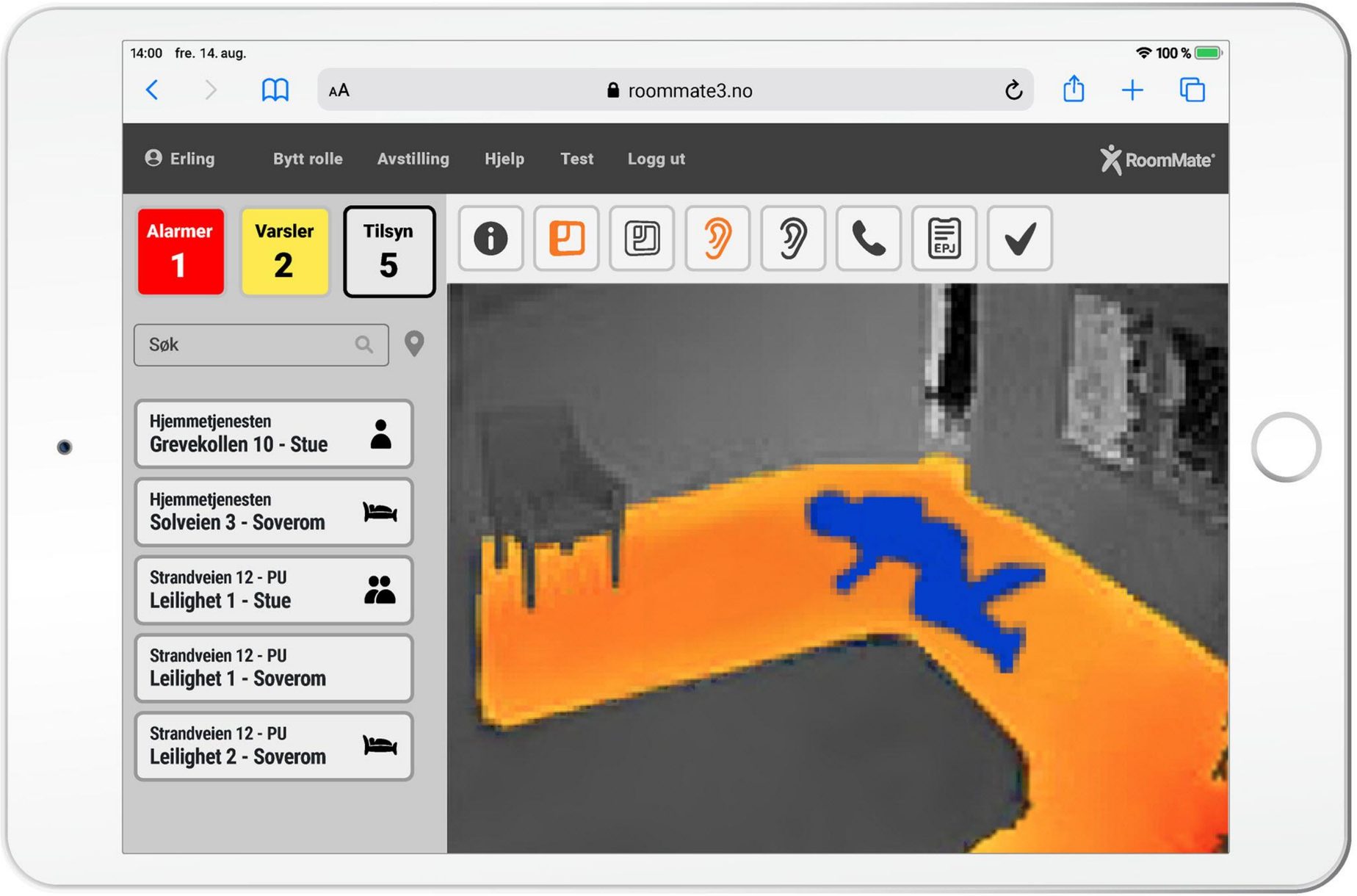

Camera can give situational awareness

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Thanks!