

HEALTH  
MONITORING  
SYSTEM



# Get help inside the home

Detects:

- ✓ Body Temperature
- ✓ Respiratory Rate
- ✓ Activity Tracking
- ✓ Heart Rate + HRV
- ✓ Stress Monitoring
- ✓ falls!

and



**CAN BE A LIFESAVER!**

# PRODUCT INFRASTRUCTURE

- NICE AND FRIENDLY DESIGN. THE WEARABLE PART IS IN PENDANT AND/OR WRISTBAND AND/OR CHEST BAND FORM. WATERPROOF.
- THE POWER FOR THE WEARABLE PART IS GENERATED BY BATTERIES OR ENERGY HARVESTERS BASED ON BODY TEMPERATURE AND MECHANICAL (ELASTIC) ENERGY GENERATED BY FALLING.
- MICROCONTROLLER-BASED PRODUCT, IN THE WEARABLE (ULTRA LOW POWER) AND IN THE FIXED PART.
- WIRELESS CIRCUIT

# SENSORS

- TEMPERATURE SENSOR
- POSITION AND ACCELERATION SENSORS
- VELOCITY SENSOR
- ECG SENSORS
- RESPIRATORY RATE SENSOR
- GALVANIC SKIN RESPONSE SENSOR



# CONNECTIVITY

- FOR THE WEARABLE PART:
    - BLUETOOTH 4.0 OR ZIGBEE
  - FOR THE FIXED PART (PERSONAL SERVER):
    - WIFI OR
    - CELLULAR (MOBILE) TECHNOLOGY
- FOR DATA TRANSMITTING IN THE CLOUD.



# ANALYTICS

- DATA FROM SENSORS ARE USED TO DETERMINE THE STATE OF HEALTH OF THE PERSON.
- DATA FROM SENSORS COULD BE USED IN CONJUNCTION WITH:
  - OTHER DATA CONCERNING THE HEALTHCARE INFRASTRUCTURE AVAILABILITY IN ORDER TO:
    - TALK TO THE PERSON FOR COMFORTING AND/OR GIVE THE PRIMARY ASSISTANCE (SPECIALISED CENTERS).
    - SENDING THE NEAREST AMBULANCE.
  - OTHER PERSONAL DOCTOR DATA TO GIVE ADVICE.

# APPLICATIONS

- FOR SMARTPHONES, TABLETS AND COMPUTERS TO ACCESS THE DATA IN THE CLOUD.
- IN THE CLOUD TO:
  - FILTER THE DATA
  - SECURE THE DATA
  - ANALYSE THE DATA AND ASSIST IN THE DECISION PROCESS
  - PRESENTING/VISUALIZING THE DATA IN A FRIENDLY AND USEFUL FORM