

# Technical description

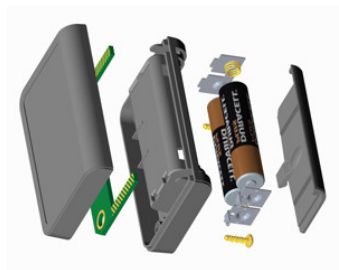
## Technical features of the Angel4 device

The box includes:

- Angel4 fall detector
- Retention clip
- Batteries: 2 AAA batteries
- First steps booklet



The Angel4 fall detector is constituted by:



- Tri-axial accelerometer
- Microcontroller module that incorporates a sophisticated algorithm able to detect falls and a Bluetooth communication module
- Battery case

Dimensions: 65 x 48 25 mm

Weight: 52 g

Communications: Bluetooth Low Energy (BT4). The fall detector and the smartphone can communicate within an approximate range of 15-20 meters, depending on the interposed structures. Alerts sent by the smartphone can only be guaranteed in case there is cellular coverage. The device can be easily integrated in telecare or teleassistance platforms.

Battery life (2 AAA batteries): Approximately 6 months

The device is user friendly. It does not include switches or buttons. It turns itself on when movement is detected and turns itself off when no movement is appreciated, so as to save battery.

It is worn on the waist by means of a retention clip included in the box. We also sell a custom belt for those people who don't wear a standard belt regularly.

Angel 4 device detects:

- Falls
- Fall recovery
- Low battery level on the device

These conditions are reported to the app installed in an Android smartphone (version 4.4 or higher) through a Bluetooth communication.



# Technical description

## Features of the Angel4 app

Approximate download size: 5,29 MB (may change in future updates).

### Permissions asked by the app:

Location: precise location (based on network and GPS)

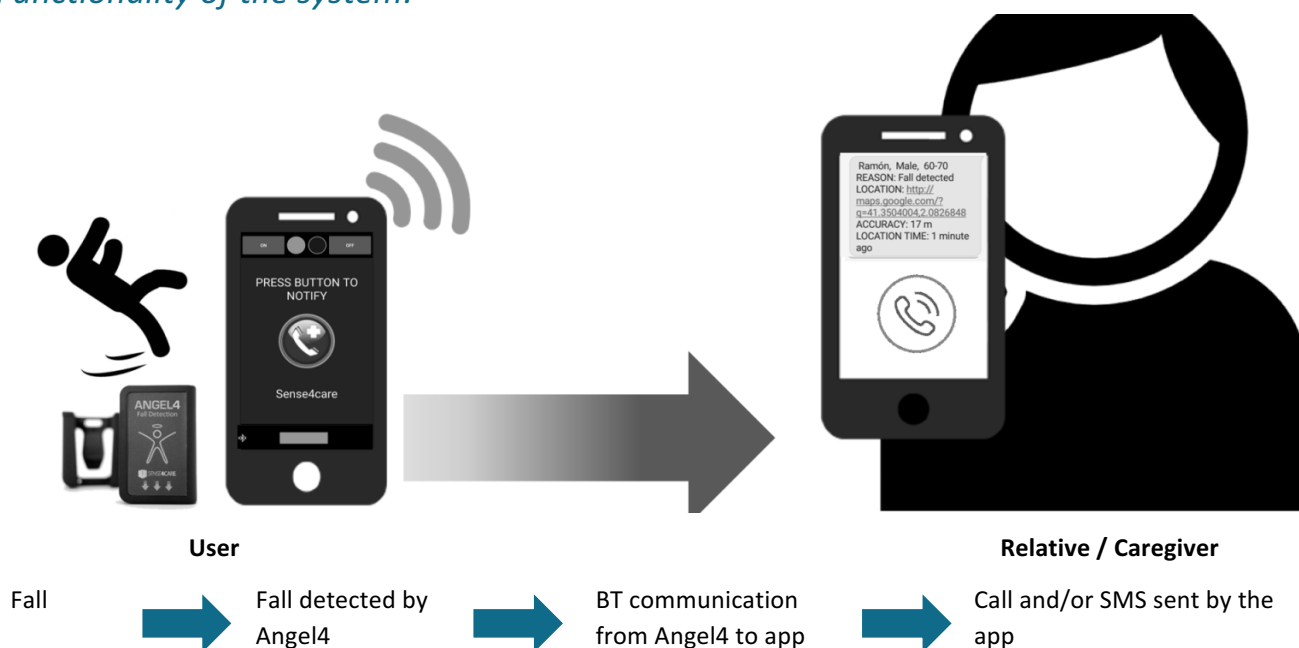
SMS: send SMS

Phone: call directly to phone numbers

Others

- Receive internet data
- View network connections
- Pair with Bluetooth devices
- Access to Bluetooth settings
- Disable screen lock
- Total network access
- Run at start up
- Reorganize running applications
- Avoid the standby mode of the device
- History of applications and device: Recover running applications

### Functionality of the system:



### Types of messages

Every message or alarm can be cancelled from the app installed in the user smartphone, since a pop-up window will appear announcing the alarm condition detected and the action to be taken. The app settings permit to define the waiting time, GPS activation interval, etc.



# Technical description

The application alerts about the following situations:

- Fall detected
- Fall recovery detected
- Low battery level in the fall detector
- Low battery level in the user's smartphone
- Communication lost between the fall detector and the smartphone

## *App update 1.0.4: March 31 2017*

- Multiple SMS receivers: Now the app can send SMS to up to 5 contacts (Settings -> Add multiple relatives/caregivers).
- Bluetooth: Now it is possible to activate/deactivate the Bluetooth communication manually.
- Age: Any value can be set [0-100].
- Battery level indicator: Better graphical representation.
- Bug fixes.



# Technical description

## Smartphone soportados



App



Android



Test realizado

- Asus PadFone 2 (A68)
- BQ Aquaris M5
- Google Nexus 5 (bullhead)
- Huawei X2 (HWG)
- LGE LG G3
- LGE LG G Stylo (g4)
- Motorola Moto G(4) (athene)
- Samsung Galaxy Core Prime
- Samsung Galaxy S4
- Samsung Galaxy S5
- Samsung Galaxy S5 Neo
- Samsung Galaxy 7
- Symphony Teleca JERRY
- Xiaomi MI 4s (aqua)
- ZTE ZTE Blade A452 (P635F3)
- ZTE Vodafone Smart prime 7 (P809V50)
- ZTE Nubia Z5s mini

