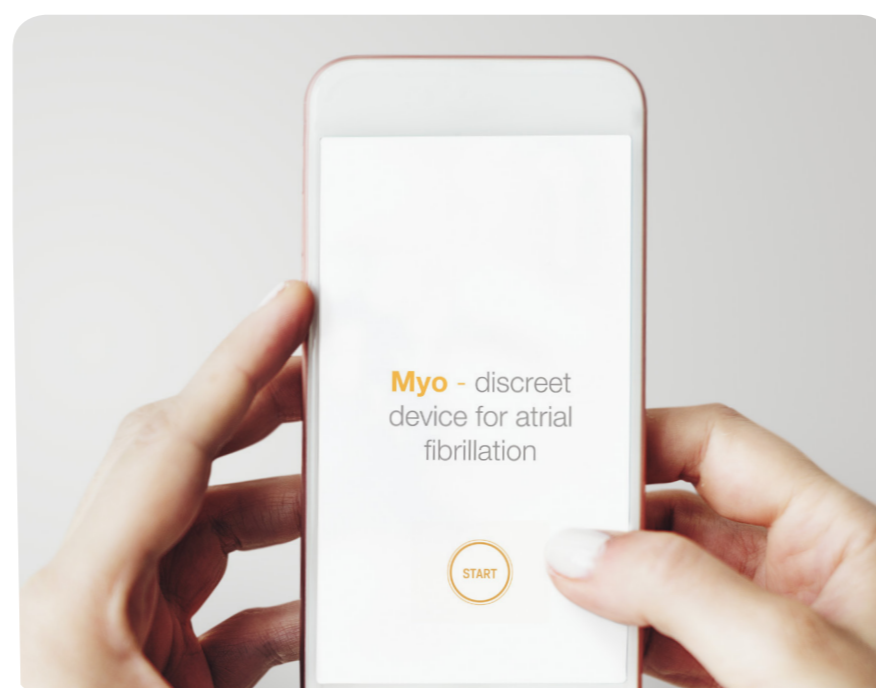
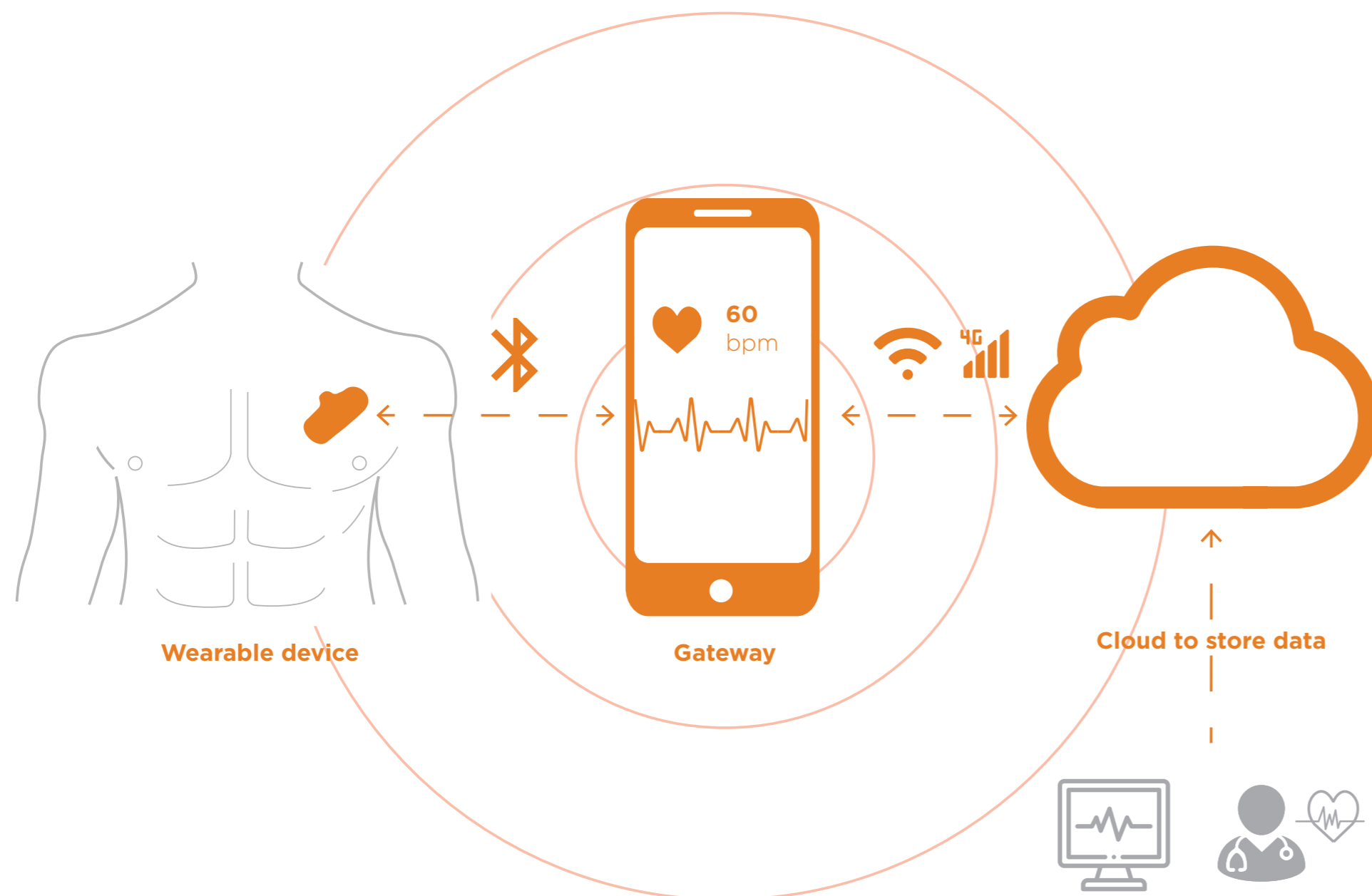


Myo

A discreet device to monitor atrial fibrillation for elderly people



Description of the final product system

In collaboration with Cardioline Spa, this graduation project presents the development of a discreet device to monitor atrial fibrillation for elderly people.

What are the components of the new system?

The new product system designed is composed by three elements: the wearable device, the docking station and the smartphone app.

The wearable device is a light and compact biosensor attached to the patient chest by means of patch-electrodes. The device is able to collect the patient's ECG and transmit it to the server cloud by smartphone which works as a gateway.

The device comes with the docking station. The docking station has a double function: on one side it charges the device, on the other, it charges the smartphone through wireless charging.

The wearable device and the docking station are integrated with a smartphone app. The app helps the user to set up the device and to monitor real-time the patient's ECG. Furthermore the app can also be used to notify possible device problem to the user or to the physician.

How it works ?

The patient ECG is collected by the wearable device and then transmitted through Bluetooth to the smartphone which works as gateway. The smartphone continuously receive and send all the data to the cloud where all the data are stored. Data are only accessible to the patient and sharing is possible only through patient's authorization .

Benefits of the new product system

Compared to the current Cardioline holter monitor (Walk 400h) the new device is 70% lighter and 70 % smaller and it is wireless. The device is more comfortable since enables patients to complete all their routines without any movement limitation. (For instance, it is possible to have a shower without removing the device).

Furthermore the new product-system improves the holter monitor experience by removing unwanted travels and waiting times involved in the standard procedure. Additionally, The device presents several margin of improvements as real-time recording, online clinical record and user feedback about the product.

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