Goals (Revision 1)

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Group 2

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Date	Revision Number	Authors	Comments
2014/10/14	Rev 0	Adam Trela Brandon Youmans Samuel Habicht Shawn Simon Taylor Sorgini Zach Lau	Initial creation of Goals
2015/03/02	Rev 1	Adam Trela Brandon Youmans Samuel Habicht Shawn Simon Taylor Sorgini Zach Lau	- Overall grammar correction. - Refinement and addition to system goals.

Figure 1: Table of Revisions

Table of Contents

1 - WiCare: Company Vision

WiCare provides a discreet and reliable way for Caregivers to monitor the well-being and location of Patient. WiCare has the ultimate end-goal of removing the stigma of modern aging and care products, allowing the Patient to live a safe and comfortable life, whether inside or out of their home.

2 - How WiCare Works

- There are 3 different areas that a Patient would be able to travel in:
    i. *The Expected Area*: this is an area where the Patient would be expected to be, such as a house or a palliative care facility.
    ii. *The Accepted Area:* this is an area that the Caregiver would deem as acceptable for the Patient to be in, such as a city block or park surrounding the Patient's home (*Expected Area*).
    iii. *The Undesired Area:* this is the area where the Caregiver would deem unacceptable for the Patient to be in. This area is outside resides outside the *Expected* and *Accepted Areas.*

- If the range threshold is exceeded, the device will scan for location at predetermined intervals. Locations will be sent to a designated device(s) to notify Caregiver.

- The wearable will be contained within a housing that can fit on the wrist. It will be aesthetically appealing, potentially customizable and designed to remove the stigma of conventional monitoring solutions. The housing will have a patient controlled button on it, and when activated, will send a distress message to the Caregiver.

- Mobile app integration:
    i. User defined accepted area specification.
    ii. Customizable wearable configurations for location reporting and tracking.
    iii. Push notifications from the wearable - location reporting, emergency reporting.
    iv. Device location history.

- Designed in such a way that the Patient cannot alter the functionality of the device.

3 - Product Necessity

1. Persistent discreet and reliable surveillance of the Patient in the Caregiver's absence.
2. Real time alerts and notifications for Caregivers.
3. Low budget alternative to current Patient care and tracking platforms currently on the market.

4 - Goals

1. Design a system that is capable to detect when the Patient is inside or outside of any of the three defined zones (Expected, Accepted, Undesired).
2. A system that can periodically poll the Patient's location or provide the Caregiver with the Patient's location on demand.
3. A device that is easily turned enabled or disabled in the presence of a Caregiver.
4. A device that can easily interface with a Caregiver's existing hardware options, such as a smartphone or tablet.
5. A device that is tamper-proof and robust:
    a. The Patient should not be able to remove or disable the device without Caregiver being notified.
    b. The Patient should not be able to damage the device during daily activities, such as bathing, swimming or enduring inclimate weather.
6. Powered by a reliable and long-term power source.
7. A device that allows the Patient to alert the Caregiver in the case of emergency.
8. A device that will notify the Caregiver of irregular Patient behaviour:
    a. The Patient is outside the expected zone during irregular hours.
    b. The Patient is outside the expected zone in inclimate weather.

5 - Extended Goals

- Fall detection system able to distinguish a fall from regular movement.
- Heart rate monitoring.