"Critical Assistant for (old) Person (CAP)"

Final report

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1. Introduction

This document includes the brief description about the project Critical Assistant for (old) Person (CAP) that we had created during the Summer School on telecommunications code Camp. In this article, we are sharing the idea about the innovation of the project, features of the project

We are trying to cover the other aspects such as technologies that had been use to achieve the application goals.

• Purpose

The main purpose of this document is to provide the clear view on following points

a. Basic concept of the project.
b. General view of Application.

2. Idea

CAP is the last hope for old and physically limited person in cases when they fall down. CAP provides 5 levels of warnings and emergency signals. CAP is a stand-alone personal assistant with no user interaction. CAP targeted to old people, persons with physical limitations.

CAP Levels

LEVEL 1

• Idle mode. Looks for sight of falling.

LEVEL 2

• If falling was detected. User asked to confirm whether he/she is ok.

LEVEL 3

- Sound warnings help to get attention from nearest area. (GPS unit powered up to receive coordinates.)
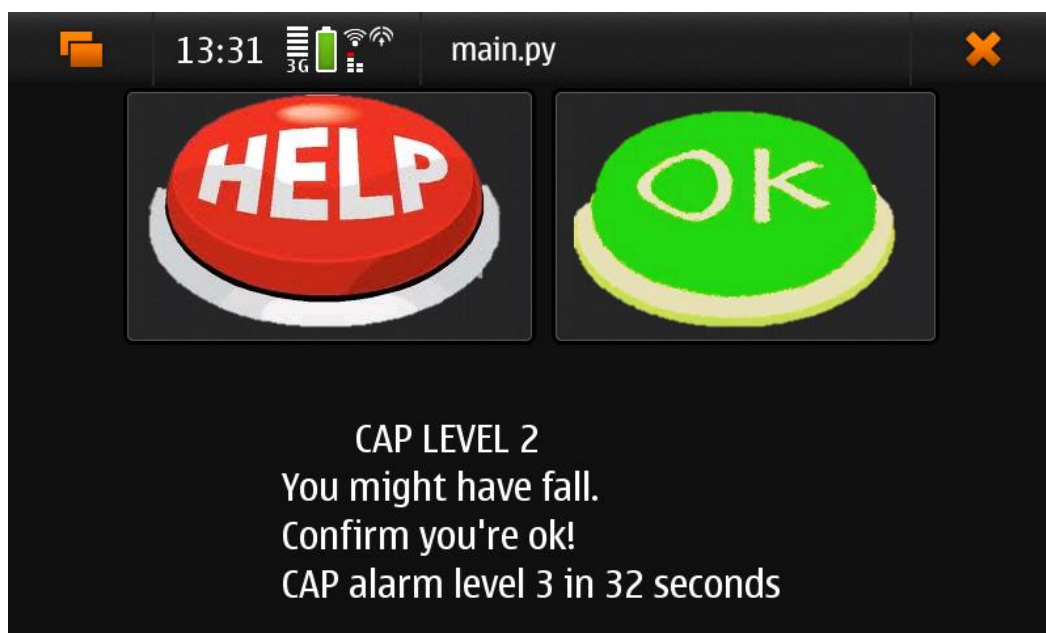
LEVEL 4

- CAP sends sms messages and call to predefined phone number. (FM transmitter powered up to transmit emergency messages.)

LEVEL 5

- CAP calls to emergency center (112). (Providing GPS coordinates and individual information by synthesizing text to speech.)

Each CAP level has time delay. If no user interaction detected in limited time, CAP raises emergence level. User interaction terminates current alarm. One more circle of emergency calls is started to guarantee stable condition of person. Emergency button to rise CAP level with no time delays.

3. Screenshot

4. Future Implementations

- CAP LEVEL 3: Power up GPS unit and receive current coordinates
- CAP LEVEL 4. FM transmitter with frequency swapping
- CAP LEVEL 5. Speech synthesizer of GPS coordinates.

5. Technologies

- PC: Ubuntu (Linux)
- N900
- Eclipse with ESBox

6. Conclusion

While making implementation of our idea, some vital features were left from application due to lack of tutorials. Developing in Maemo environment was ambitious; we faced some problems during the night but at the end we somehow managed to find the solution and finally it work.

About the application: Application will be very useful for the older people in any emergency and it is their last hope for old and physically limited person.

Finally code camp is really a nice experience for gaining knowledge.