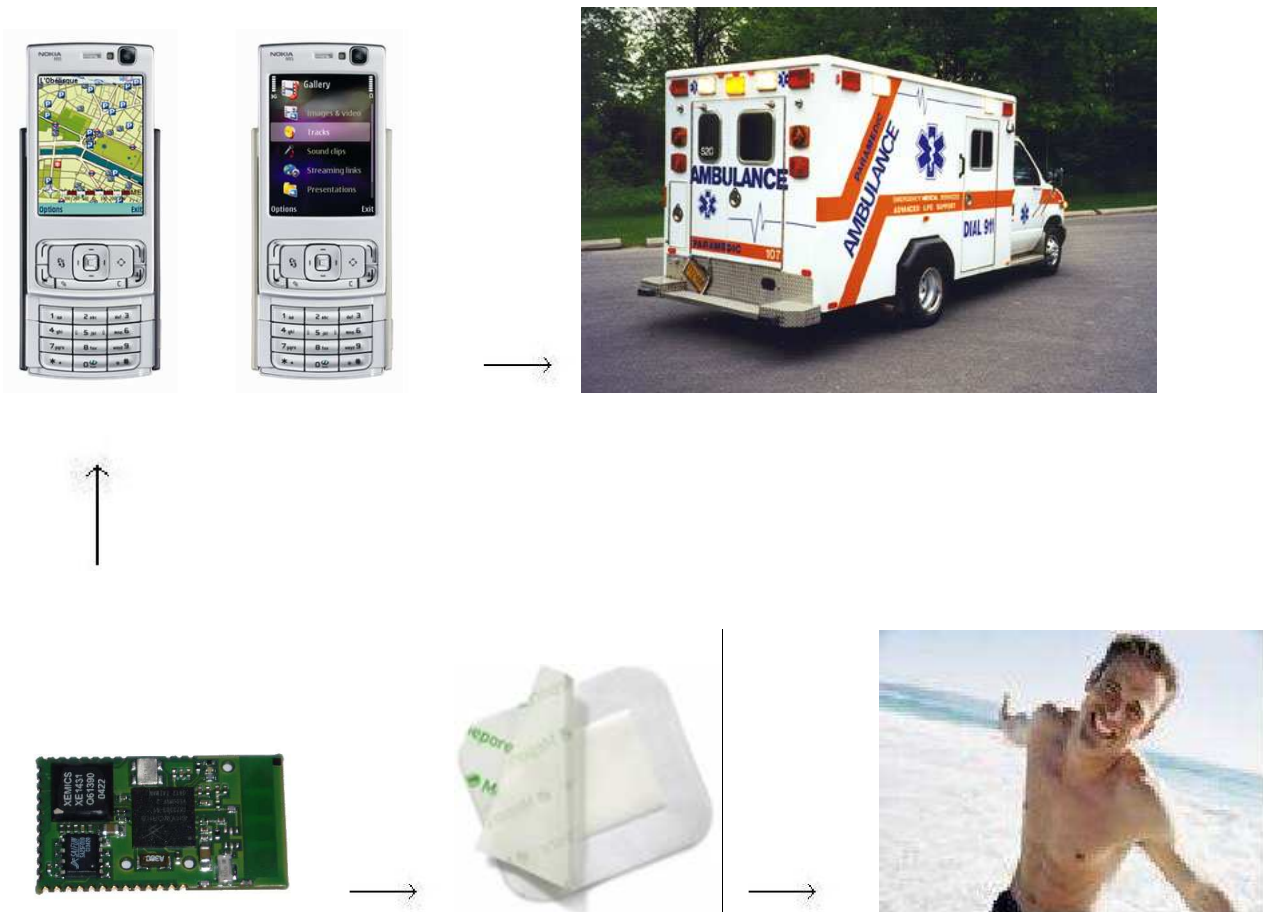


Heart Monitor

Abstract

HeartMonitor is a system that monitors heart status, automatically contacts the emergency central at heart failure and gives the position of the patient using the GPS. The EKG or pulse is collected using a chest patch with electrodes recording the signal and a Bluetooth unit which transfers the heart status to the mobile phone. The Bluetooth data transfer feature needs to be implemented in the code. For now the program just simulates a heart attack after a given number of seconds.

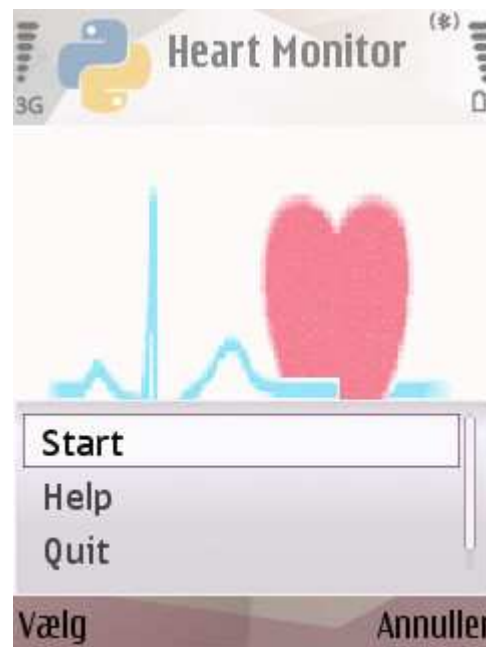
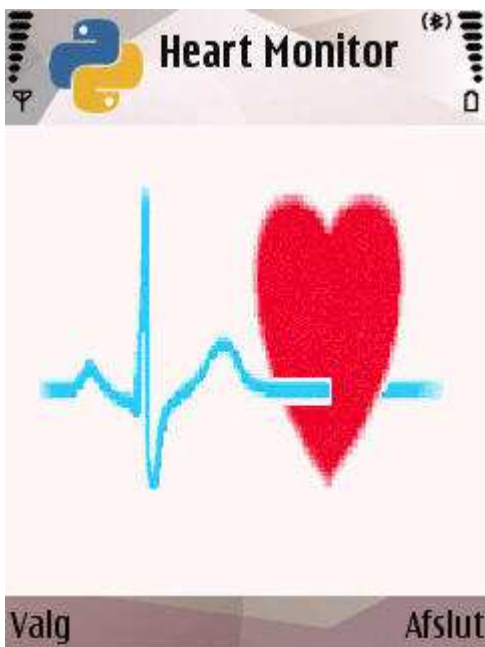
1. EKG - Microcontroller with Bluetooth in chest patch



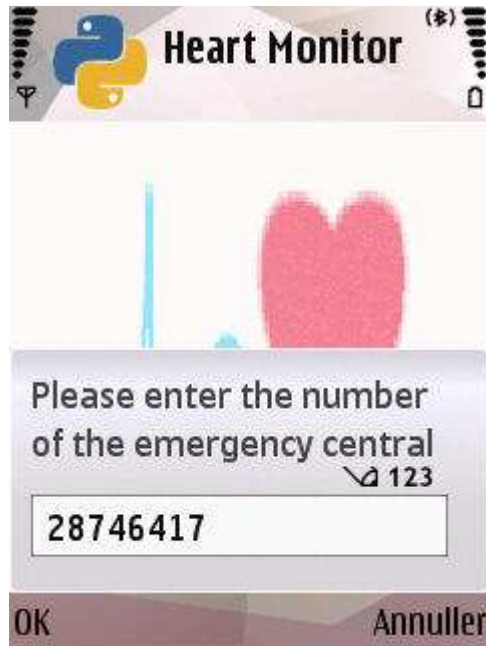
2. Pulse – Polar heart rate monitoring equipment



Pictorial walk through



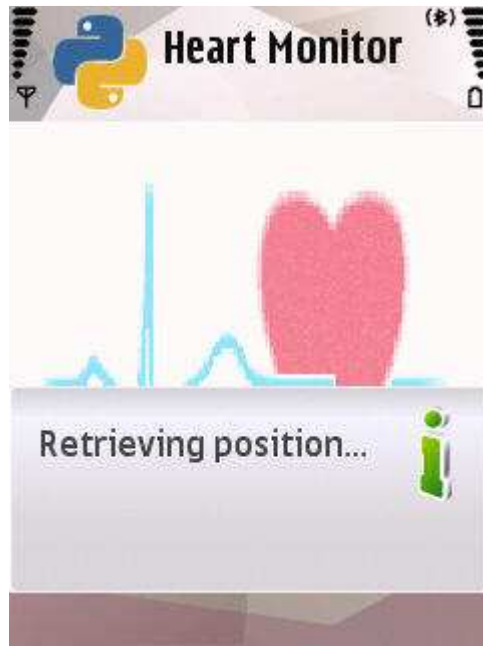
The main window of the program, with the menu 'Start', 'Help' and 'Quit'



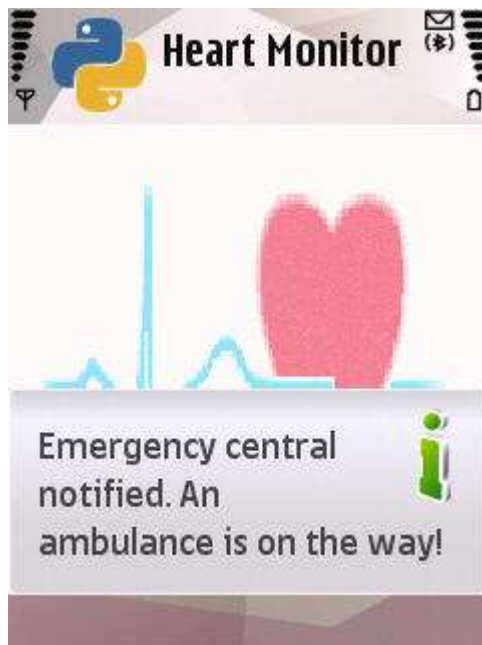
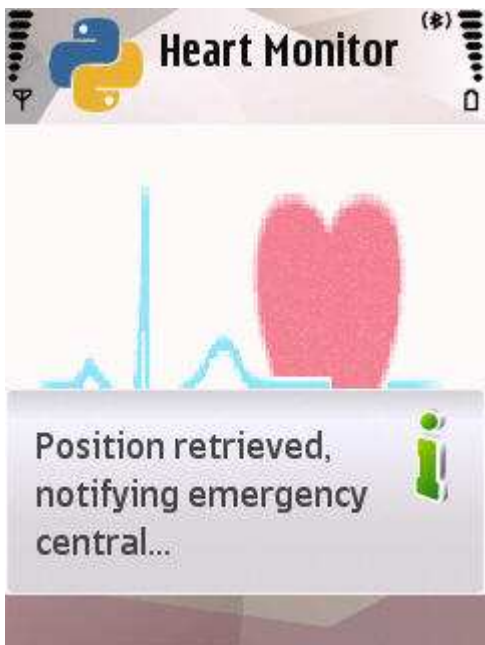
You begin with entering your CPR number to let the Emergency Center know who you are and then you enter the number of the Emergency Center that is to receive the SMS when you have a heart attack.



The connection between the n95 and the chest patch/pulse monitor has not been developed. The heart attack is simulated instead. This is done by entering the number of seconds until the program simulates that you are having a heart attack.



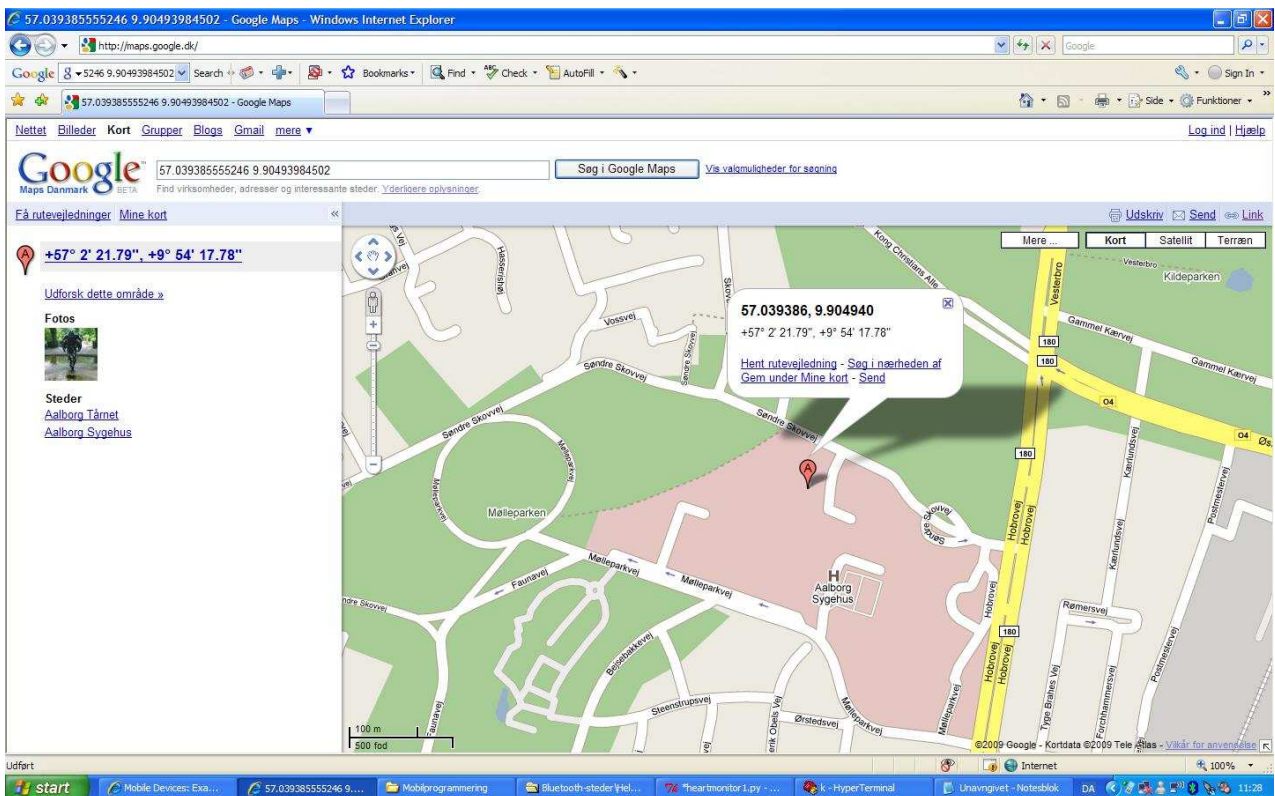
When the program registers the heart attack the alarm is initiated and it requests your position through the GPS.



When the position is retrieved an SMS is sent the Emergency Center and an ambulance is sent to your destination.



The message the Emergency Center receives contains your CPR number and the latitude and longitude of your position.



The latitude and longitude can be entered in Google Maps at <http://maps.google.dk/maps> to show your position on a map.