Eng 4000 Thesis Project Proposal
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Members:

Douglas Stamp, Hamdi Roumani, Tyson Hamilton, Patrick Tayao

Proposal 1 GPS based proximity sensitive reminder

Concept:

People use pagers, timers and other time based alarms to remind them of important appointments, errands deadlines etc. however it would also be useful and practical to have a device to send reminder alarms triggered not by a time deadline, but by a location sensitive target. Target locations, for example a supermarket, post office bank or gas station would be tagged with GPS style location markers and the device would send out an alarm to the user when he/she is within a certain proximity and that target location is an item in the "to-do list". For efficiency sake, the device will be integrated into another device such as phone mp3 player or simple a standard GPS locator.

Implementation:

The handheld or in car device uses GPS to indicate certain landmarks designated by the user are within a certain proximity. The Proximity can also be related to the time of day, for example being near your banking establishment of choice while its open, not 6 am in the morning. An alert – say an automated voice – indicates that the landmark is nearby so the user may decide to what to do at that point. The landmark is then removed from the list.

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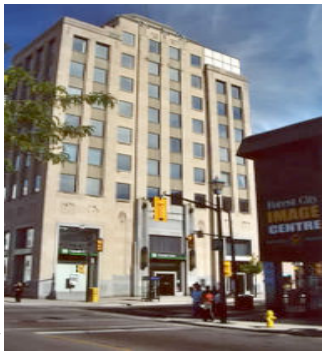

Proposal 2 Temperature controllable clothing and footwear

Concept:

With such a wide variance in temperatures throughout each year, heated clothing during the cold weather in winter would be very useful. Using non-electrical fibers woven into the material of the clothing, and controlled via a small stop watch like device kept in a pocket of the article of clothing, the temperature throughout the material can be controlled as determined by the discretion of the one wearing it.

Implementation:

Heat conducting, mesh –like polymer is used as the underlining of the clothing and supplied power via a battery based micro controller stored within an inner pocket of the garment. The microcontroller has an integrated thermostat to keep track of relative temperature of the clothing, so the user can determine and set the desired heat level.