Using Technology to Measure Adherence of Complicated Medication Regimens

Progress Report 7

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Problem Statement
According to a recent study, almost 75% of patients, especially the elderly, do not adhere to their medication regimens for various reasons. This lack of adherence can prevent a patient’s recovery. Additionally, the present state of affairs is such that if a patient reports no improvement, a physician does not definitively know whether to try a different medication or whether the patient is simply not taking the medication regularly. To improve general health of patients assigned complicated medication regimens, we are to make a device that keeps a record of when a patient takes their medication.

Project Schedule/Important Dates
March 9th Midsemester Presentation
May 4th Poster Presentation
May 9th Final Papers Due

Summary of Team Accomplishments
• Finished mid semester presentations
• Created computer interface

Current Difficulties
• For an unknown reason, the bootloader needed to be re-installed once. David Marcovitch tells us that this should not have happened and should not happen in the future.
Activities

Sujan
Mid Semester Presentation  2 hrs
Power Point Updates      0.5 hrs
Notebook                0.5 hrs
Communications         0.5 hrs
Total:                  3.5 hrs

Cara
Science Expedition      2 hrs
Mid Semester Presentation 1 hr
Research                1.5 hrs
Total:                  4.5 hrs

Farshad
Mid Semester Presentation 2 hrs
Web updates             0.5 hrs
Research                3.5 hrs
Total:                  6 hrs

Nipun
Mid Semester Presentation 2 hrs
Power Point Updates      1.5 hrs
Science Expedition       0.5 hr
Research                  3 hrs
Progress report          0.25 hr
Total:                  7.25 hrs

Team Total Hours for this Week: 21.25 hrs
Cumulative Team Hours this semester: 116.5 hrs
Cumulative Team Hours to Date: 561.75 hrs

Expenses

- Microcontroller (PIC18F4685-I/P-ND) $27.44
- Watch chip (DS1307) $17.58
- USB to serial (TTL) interface (DLP-USB232M) $31.47
- Plexiglas $4.21
- Microcontroller (PIC18F4550) $30.50
- Pill box $4.16
Total: $116.36