Using Technology to Measure Adherence of Complicated Medication Regimens

Progress Report 3

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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
- Attended outreach meeting
- Decided on new microcontroller for this semester
- Constructed a priority list
- Ordered new microcontroller (PIC18F4685-I/P-ND)
- Ordered a watch chip (DS1307)
- Ordered USB to serial (TTL) interface (DLP Design DLP-USB232M)

Current Difficulties
None
## Activities

### Sujan
- Class Meeting: 0.5 hr
- Meeting with Ben: 2 hrs
- Home Depot and Craft Store: 3 hrs
- Communications: 0.5 hr

**Total:** 6 hrs

### Cara
*Cara was out of town this week*

**Total:** 0 hrs

### Farshad
- Class Meeting: 0.5 hr
- Meeting with Ben: 2 hrs
- Home Depot and Craft Store: 3 hrs
- Research: 0.5 hr
- Website updates: 0.25 hr

**Total:** 6.25 hrs

### Nipun
- Class Meeting: 0.5 hr
- Meeting with Ben: 2 hrs
- Home Depot and Craft Store: 3 hrs
- Research: 0.5 hr
- Idea about altered lid design: 0.25 hr
- Online purchases: 0.5 hr
- Progress report: 0.25 hr

**Total:** 7 hrs

**Team Total Hours for this Week:** 19.25 hrs

**Cumulative Team Hours this semester:** 38.5 hrs

**Cumulative Team Hours to Date:** 484.25 hrs

## Expenses (approximate values)
- Microcontroller (PIC18F4685-I/P-ND): $27.44
- Watch chip (DS1307): $17.58
- USB to serial (TTL) interface (DLP-USB232M): $31.47
- Plexiglas: $0.21

**Total:** $80.70