

## **Project:Possibility SunSPOT Project Meeting Agenda**

11:00 A.M. – 1:00 P.M. March 1<sup>st</sup>. 2008

### **Attendees:**

Irina Abramova  
Sean Bachelder  
Praveen Kansara  
David Woollard  
Winnie Yip

### **Minutes From Last Meeting:**

Each member introduced themselves to the team by describing what interested them with regard to the Semester Project and what abilities they contributed to the team.

Dave reviewed the schedule for the semester and milestones that were presented by Marc Allen and Chris Leung last week. Dave suggested that the team focus on the review aspects of PDR and CDR, noting that industry reps and Semester Project management will be giving feedback to us during these milestones.

Dave introduced the team to the SunSPOTs Project Wiki include the project documents section, specifically directing attention to the SunSPOTs Team Development Software Deployment Document. This document describes the setup of software for development purposes.

The team discussed possible project topics. Sean started by proposing a few possible topics including sonar for blind people, health monitoring to be worn on person, and SunSPOT as rehab device. Praveen suggested a project involving the sunspots assisting a disabled person by translating gestures into speech. Winnie discussed the possibility of SunSPOT motion capture to be used to draw in the air. Irina suggested monitoring a person's movements.

Dave consolidated these ideas into two possible projects: a motion-capture system, and an environmental assistant system. After discussing both projects, the team concluded that they would pursue the motion-capture system. We developed the idea further to be a general "gesture capture" system that would consist of a SunSPOT communicating accelerometer data to a base-station that could record and recognize gestures and use a plug-in framework to act on these gestures.

Dave discussed the upcoming PDR and suggested that as an action item for each member of team would be to summarize the discussion of this evening in a

concept description statement and to discuss possible risks with the project and mitigating strategies.

**Open Action Items:**

<b>Num</b>	<b>Description</b>	<b>Assignee</b>
2	Become familiar with the software packages described in the Development Software Deployment Document	All
3	Install SunSPOTS Hardware	All

**Agenda:**

1. Review & Discussion of Status Update	(Woollard/All)
2. Schedule (A.K.A., Road to PDR)	(Woollard)
3. Development of Architecture	(All)
4. PDR Assignments	(Woollard)

**Action Items Closed In This Meeting:**

<b>Num</b>	<b>Description</b>	<b>Assignee</b>
1	Email the dev list with Concept Description and Risk/Mitigation Strategy	All
4	Draft Status Update for review by team	Woollard

**Action Items Resulting From This Meeting:**

<b>Num</b>	<b>Description</b>	<b>Assignee</b>
5	Develop prototype schedule/milestones	Woollard
6	Develop template for PDR slides	Woollard
7	Ask semester project management about the expected length of PDR and amount of time for presenting	Woollard
8	Finish infrastructure setup	Woollard
9	Get Gamepipe remote code	Praveen
10	Design slides for each subsystem due next Thursday.	All

**Meeting Minutes:**

Dave gave out two of the remaining SunSPOTS:

0000.2ADF – Sean

0000.2EE8 – Praveen

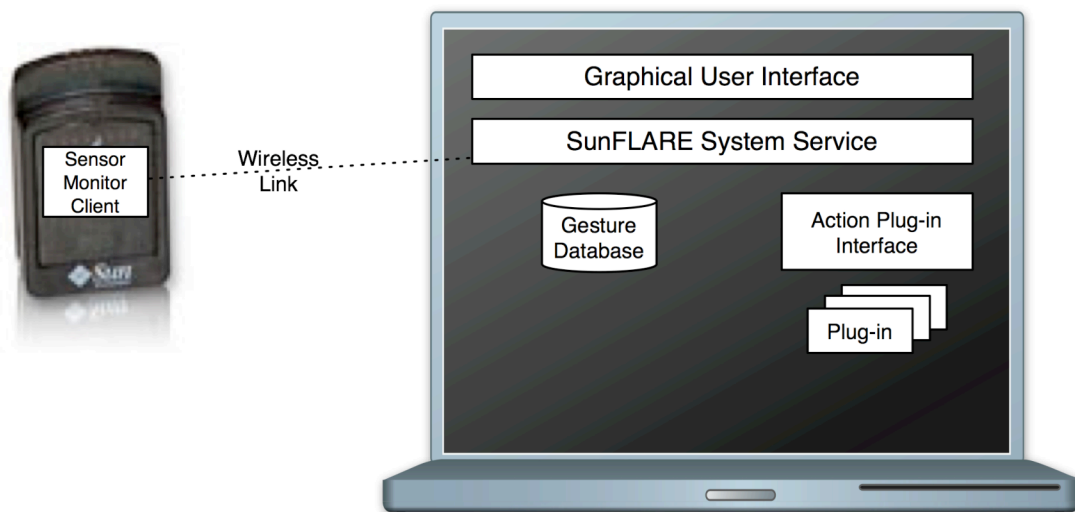
Dave reviewed the Status Overview document, briefly reiterating the document contents. The team discussed the need for a prototyping effort to address both the risks discussion in the Overview Document and additionally to attempt to put together a package that could be clinically tested.

Dave suggested that two members of the team work on the prototyping effort while the other three focused on the PDR material. In order to allow everyone to

have both development and documentation experience, the two people working on the prototyping team would have a more significant role in CDR in order to report on the prototype effort findings. Winnie and Praveen volunteered to be on the prototyping sub-effort.

The team discussed the content of the PDR, to be held in approximately two weeks. Dave suggested an organization for the PDR material that consists of two parts: a design section and a management plan. In the design section, we will cover the architecture of the system, data flows, APIs and mockups for the user interface. In the management plan, we will discuss the schedule, risks, mitigation plans, and prototyping effort.

In order to focus efforts on developing the design for PDR, Dave suggested a high level architecture for SunFLARE as follows:



Dave suggested that there were five subsystems in this architecture and that each of the development team should research and further develop one of the subsystems. The five subsystems are:

- SunSPOT Communication
- User Interface
- Gesture Recognition Algorithm
- API for Plugins
- Persistence (Gesture DB)

Because the SunSPOT communications and recognition algorithm will be established as part of the prototyping effort, Winnie and Praveen will be responsible for these areas. Irina will be in charge of the plug-in subsystem and Sean will develop the user interface designs. Nikhilesh will be in charge of persistence design.

Dave asked each team member to spend the next week developing slides for each of their respective sections. The slides should cover: Overview of the subsystem, architectural diagrams, and data flow. For the plug-in system, the slides should additionally cover the API for third party software and three example applications that we will develop as part of the project. For the user interface, the slides should include mockups for each of the mitigation strategies discussed in the Status Overview Document. Dave will focus on the management plan for the PDR.

As next steps in the prototyping effort, Praveen will talk to Charles about getting the code developed by the remote team in the Gamepipe lab.

The next team meeting will be Thursday, March 6<sup>th</sup> at 6pm tentatively in RTH 306. Please have your subsystem design slides prepared by this meeting.