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Smart Irrigation Project Release Plan

Product Name: Smart Irrigation Project (SIP)

Team name: iSlugs

Release Name: Hello World!

Release Date: Mid-December

Revision number: ?

Revision date: ?

High level goals:

1. Must be stable and reliable. (Fully tested!).
2. Develop a simple website or user manual for documenting this project.
3. Detect moisture levels in the soil.
4. If the soil is too dry, automatically open valves or turn on pumps to give water to the desired plants.
5. Be able to run off of solar power and therefore have minimal power consumption.
6. Require little to no human interaction to function properly once set up.
7. Ideally, store data which the user can access or download.
8. Ideally, be easy to setup/install in the field.
9. Ideally, use a scalable design to make any future work easier. (Larger field areas, more sensors, wifi capabilities, cell phone interactions, etc.)

Sprint 1

- As a hardware developer of the system, I need to know a system architecture so that I can identify hardware restrictions and required functionality!
- As a software developer of the system, I need to know what hardware we are using so that I can write appropriate code.
- As a developer of the system, I need other developers to document their work thoroughly (using comments in code, a manual, a website, or other methods) so that I know what their stuff does.
- As a farmer, I need the system to be able to detect the moisture level in the soil so that the system knows plants need water.
- As a tester of the system, I need the system to log data so I can run tests that take a long time..
- As a farmer, I need the system to be able to deliver water to the plants so that they are not stressed by dehydration. (May be pushed to Sprint 2 if not enough time)

Sprint 2

- As a user of the system, I need a user manual for the Smart Irrigation Project so that I know how to operate the system.
- As a farmer, I need the system to be capable of running off of solar power so that I don't have to waste money on higher electricity bills and so that I don't have wires criss-crossing my field. (A potential electrocution hazard!!)

Sprint 3

- As a tester, I need to be able to run software and hardware tests on the system so that the final product is stable and reliable.
- As a farmer, I need the system to run without my help so that I don't have to worry about my plants dying!
- As a farmer, I would like to be able to change the default settings for the system so that plants with different watering requirements get the appropriate amounts of water.
- As a person living in California, I want the system to not over water plants (waste water) so that I don't die of dehydration because the state runs out of water.

Product backlog:

- As a farmer, I would like to wirelessly access data stored in the system. (eg. WiFi to cell-phone)
- As a farmer, I would like the system to water plants in the best way. (eg. at night to minimize evaporation)

Note from Alex: In the grading rubric, it states: “A record of changes to this document is kept (using Subversion on GForge)” Does someone else want to look into this later tonight? I think it is more critical for modifying the document throughout the quarter rather than while making it tonight. Do you think we could use github instead?

I think for today google docs is fine but yeah once we have our basic outline done, we ought to use github for updates so we can see where we’ve been and what still needs updating - Evan
p.s. this is looking awesome so far!

Note to everyone: Feel free to add/delete/modify/prioritize as you see fit! Blue text is the template provided the prof; black is the stuff for our release plan; red is important stuff. Also, it is useful to read the other two files about release plans in the Piazza resources.

Release Plan Template - CMPS 115 – Software Methodology

At the end of your team's release planning meeting, the team needs to turn in a release plan. This document needs to be typewritten (or the team needs to use a web-based agile planning tool and provide the TA or tutor access to the tool to view the project) and have the following elements:

- Heading: Document name ("Release Plan"), product name, team name, release name, release date, revision number & revision date.

Smart Irrigation Project Release Plan

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Team name: ? iSlugs - unless Alex has a better name

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- High level goals: A description of the top-level goals for the release. Examples include, for a game: "Be able to play one complete level (but with limitations xx, yy, & zz)," "Have all controller capabilities implemented," "Be able to create levels using a level design tool;" or for the Osric system: "Be able to handle service requests for new and existing customers with access to requests by managers and technicians." These highlevel goals may map to a single user story, but more typically will map to multiple user stories. The release functionality that is required by CMPS 115 (prototype testing, continuous integration, and website) must be listed as high level goals in this section of the document. <<< **What does he mean by this last sentence? These are part of the development process, not the product...** -Alex >>> High level goals must be listed in priority order, from highest (top) to lowest (bottom).

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