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Sprint 3 Report - Smart Irrigation - Team iSlug

What should we stop doing?

For our final sprint we were able to integrate all of our code together to finalize our project. We knew that our deadlines for finishing this project were upon us in a short amount of time and therefore we did very well to get together more frequently than our previous sprints. Coordinating specific dates for all members to meet together had been a problem in our previous two sprints so therefore we feel that we have made huge improvements in this regard. Now that our project has come to an end, our management process won't have anything to improve on. Reflecting on the management decisions we made, we feel good about being more communicative during these final few weeks of our project. Getting together more often helped everyone get a full understanding of all the workings of our project which ultimately led to a smooth integration of all parts of the project.

What should we start doing?

There are no more sprints. So there is no work to be started! Thanks for an awesome class and quarter! -iSlugs

What is working well that we should continue to do?

We enjoy working with the scrum process/Agile style of developing. Our team all has different strengths so we all contribute in different ways. What is going well for us is being able to divide the work and conquer in smaller groups and get it done. That way more work can be done. Also, we have our individual and smaller group work checked by other members.

What work was completed, and not completed?

Goal: Setting up a database that stores the temperature, timestamp, and saturation of the soil and setting up the XBee to allow communication between the two arduinos.

User stories and tasks:

1. **(2)** 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.
    1. Unit testing of the xbee to see if the correct data is being sent to the database. (2 hours)
    2. Make sure sensors are reading reasonable data. (2 hours)
2. **(8)** As a farmer, I need the system to run without my help so the database can be populated with the appropriate soil moisture levels, temperature, and timestamp.
    1. Setting up the appropriate data structure. (2 hours)
    2. Have that data structure hold our temperature, soil moisture level, and timestamp. (2 hours)
    3. Figure out how to get a timestamp using arduino uno library. (30 mins)
3. **(5)** As a farmer, I want the system to be wireless so I can be out in the field without tripping over wires.
    1. Setting up xbee and arduino interface. (5 hours)

What is our rate of completing work?

User story 1 = Story points 2
User story 2 = Story points 8
User story 3 = Story points 5

Total story point count = 15. The estimates on our story points were pretty accurate for sprint three in terms of difficulty level and how much effort and time it took to accomplish certain tasks.

We put a total of 36 hours into sprint three, each of us doing 6 hours of work. We stayed on task during sprint three, since it is the last sprint we wanted to make sure we would get as much as possible done. Everything had to come together for this sprint, so from communication to actual physical work we stepped up and made sure all categories were tended to.

Comparing this sprint to our previous two, we can easily say that our work rate was much more efficient in this final sprint. The hours stated above don't account for the additional time devoted to meetings for management, teaching teammates about the components they worked on (by themselves or separately from the rest of the group), and integrating our components together. Just as we stated earlier, this final sprint consisted of the most work from all of us. But what is also important to note is that we feel that this was the most successful sprint considering the goals that we accomplished. We feel that we accomplished more objectives in this sprint than either of the other two.