

Smart Home
Meeting Thursday November 08 2012
Current progress

Dario Bosnjak

Wi-Fi & Automated Sprinkler system

So far I worked with Todd on finishing up the Wi-Fi control of power outlets and being able to control individual outlets depending on user preference. I have added the support for the 4th outlet and since we are planning on having lights controlled and plugged in to one of these outlets I will have the 4th outlet be triggered by laser beam when it's interrupted and also by the motion sensor. I will also make the 4th outlet be turned on even if the beam is not interrupted and if there is no motion detected. I have also added support to grab the information from the current sensors that are attached to the power outlets.

I had issues with software serial not being able to communicate with another arduino it would have a lot of noise and in some instances it would not work at all. This turned out to be due to fact we were not sharing common ground and it would not function correctly. This is now resolved.

Current issue I am having is when the mini server that is hosted on the arduino wishield is executed it is supposed to communicate to the arduino that is controlling the power outlets commands to turn on specific outlets and also to grab information from the current sensors. It is able to control the outlets without any issues but it does send set of 3 commands in order to execute one operation, it basically returns three sets of current information back to the server. I am still not sure why it does this exactly, I suspect that since the commands are executed the server closes the connection and then it opens it back up and at that time it send another set of instructions over software serial. This might be a bug in wifi server settings or in my code; I am currently looking in to it.

I am also currently working on the relay that will be switched on depending on the set conditions of the soil moisture and depending if its light or day.

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Christopher

Here's the latest with me:

Today, based on some preliminary HTML Dario gave me yesterday, I added code to Mirabilis to connect to the Dario's Arduino over WiFi and pull updates to the statuses from the outlets and

lighting and sprinklers and temperature sensors.

Next up is to get a working model of Levi's side of things. I'll be drawing from his schematics for this. Once his things are modeled then work on the web interface, communicating with Levi's system, and communicating with Dario's system can proceed in parallel.

I have reconnected my light sensing circuitry and verified that it is still working. Dario and I have worked today on getting it connected and represented on the Arduino server web page.

Dario informs me that in the worst case my software may not be able to hit the Arduino more than every 5 seconds, so we're preparing for that possibility by having Dario write code for his Arduino to run the lights from there if the latency is an issue with putting the lighting logic in the Python-based Mirabilis server software.

That's what's happening.

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Todd

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Levi