Smart Tag Project

# Introduction

Hi I am making a worksheet that needs to be updated by the members of this project, I have formatted it to display the date the page was written in the header. Professor wants me to share our progress per week. I have Input my share of the progress, please update whatever you have worked on in the previous week. This worksheet has been divided between the three of us, The sheet starts with the Name of the member . under the name is the time stamp of the day you are writing it. Once you have written the progress of the previous week, for the next week just press enter till you go to a new page(or add a page break ) and put the time stamp on the new page, use the format of the time stamp as **heading 2** (so that we can make a content list out of it). The update does not need to be perfect just a rough draft of what you did and how you did it and what results you gout out of it.

NOTE: I have added the section break right below the --------X-------X------- line, so just input your work above this line under your name. and do not delete this line or anything under this line.(or add anything under this line).

**Project Members:**

1.Vidur Nayyar

2.Young Lee

3.Raghavi Raghuraman

# Vidur Nayyar

## Monday, August 17, 15

While checking the power consumption, I found out that the code performing the USART is consuming a lot of power.

The capacitive touch uses little power, but needs to be modeled better depending on for how long we want to keep it on and what should be the interval when we should check for touch. Greater the interval = lower the battery consumption.

I also found that the RFID transmission takes up a lot of power, So we Either need to keep this to the minimum or try to find a more efficient way of doing so. Even just connecting the RFID tag to the controller sucks out a lot of power, so I feel that we should provide power to the RFID tag via the controllers pins so that we can give it power when the we want to, rest of the times we don’t give it any power. This might have 2 disadvantages, which are unclear at this point, I predict this might draw extra current from the pins frying the pins of the controller (which can be corrected by using a transistor or fast switching mosfet to act like a switch to provide the RFID tag with power when the controller wants to.). The other issue is that by not providing the tag with any power, the tag might not use its passive RFID capability to bounce back the RFID information to the receiver, this issue can be dealt with by going through the worksheet of the RFID chip or checking out the other RFID chips which can be used for similar things and don’t need power to act as a passive RFID tag.

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# Raghavi Raghuraman

## Monday, August 17, 15

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# Young Lee

## Monday, August 17, 15

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