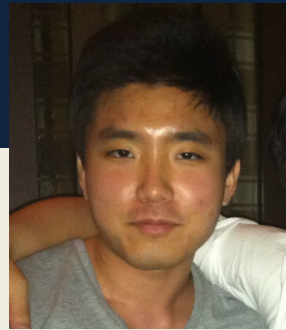


Smart Doorbell



Team 10 : **Teemo** (our favorite LoL hero)

Sung Jae Lee, Sang Won Choi, Seung Min Choi, Inho Yong



Status Update

- Smart Secretary Board -> Smart Doorbell
(Similar project exists, Design not general enough)
- Most parts are in our hands.



dead-bolt



rfid reader



arduino Mega



rfid keychain

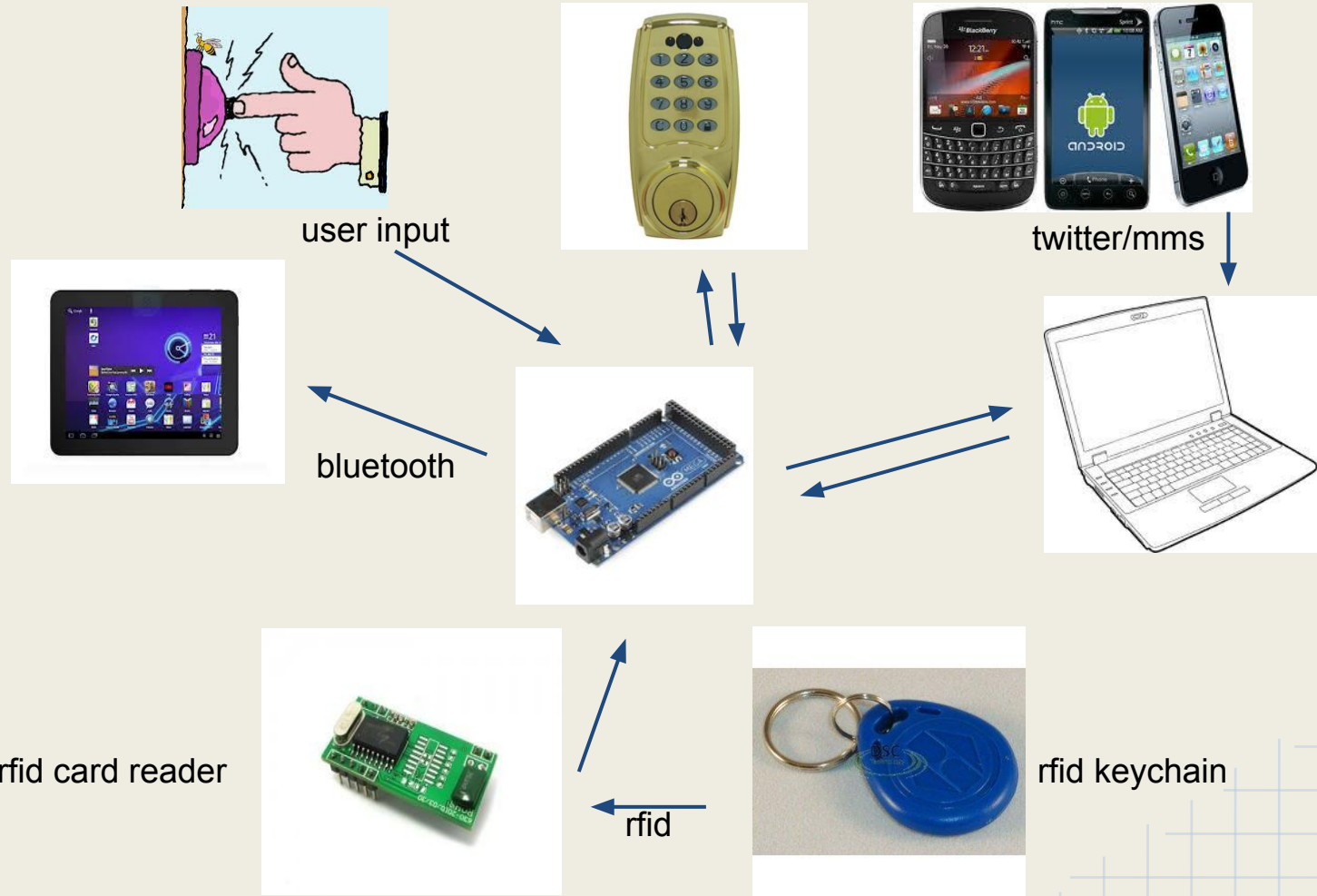
Project Motivation

- Upon reviewing feedback after the initial presentation, we noticed that a lot of people were concerned because of the lack of hardware usage in the idea—a concern we had ourselves.
- We also noticed a lot of people thought the door lock/unlock feature we thought of as an "extra" feature was good.
- So we are going to try for a similar idea but with a different approach.

Use Cases

- Visitor presses the doorbell. Tablet menu opens up. The home owner is notified along with a picture of the visitor, and can either leave a message to show up on the tablet display, chat w/ video, or decline.
- Home owner uses his/her RFID tag to get in without having to input the password in the deadbolt. Other family members of the home are notified that the owner has come home.
- Home owner can use the deadbolt normally if he/she does not have access to the RFID tag.

Architecture Diagram



Risks and Mitigation

Risk	Mitigation
Owner does not want to talk to everyone who presses the doorbell.	Tablet will take picture of the person in front of door and send it to the owner's phone for approval.
Camera malfunction: owner may not see who is visiting.	Upon camera failure, tablet will load text input interface for visitor to send messages instead.
Tablet wireless not working	n/a
Tablet theft	make the tablet built-in to the wall/door or some kind of locking mechanism attached to the door

Possible Alternatives

Plan A: doorbell, RFID, video-chat features, electronic deadbolt

But if not..

- Plan B: No deadbolt feature
- Plan C: Remove the RFID feature.

Division of Workload

- Dividing up work into three main parts:
 - Sensors: Inho Yong
 - Arduino Programming and Interfacing: Sang Won Choi, Sung Jae Lee
 - Front-end/Managing displays - Seung Min Choi