14.  Remote Lock/Unlock

* **This is a feature to me**
* Requirements
  + The door must unlock by owners phone
  + The door must lock by owners phone
  + The door also must unlock and lock with a key
  + The door must be able to unlock from a long distance through wifi or internet
    - If there is no connection to be able to do, give a warning that it doesn’t
  + Must include safety when the door is unlocked to automatically lock the door after a timer.
  + Cannot unlock the door by accident
  + Must send the data of when it’s unlocked to the database
* Components involved
  + Phone
  + Door Lock
  + Wifi
  + Database
* Extra thing is this would act like an extra key

15.  External or onboard microcontroller?

a.       External = wireless signals received from hardware components (door bell, camera, etc…)

* Requirements
  + Microcontroller must get input from the doorbell
  + Microcontroller must interact with the wifi
  + Microcontroller must receive signal from wifi
  + Microcontroller must keep giving signal until the phone hangs up
  + Microcontroller must send the video to the database or memory card
* Sequence Diagram
  + The doorbell/microcontroller must be able to give out an output to when the doorbell is clicked to the wifi
  + The wifi must send a signal to the phone
  + The phone must receive the input from the wifi
  + The phone has to send out a signal through wifi to the microcontroller if it has accepted or decline the call
  + The Camera must receive the input of the phone
* Components
  + Microcontroller
  + Router
  + Phone

b.      Internal = on/near door with direct wires running to components

* Microcontroller wire to the video and audio
* Microcontroller to set wiring to the video and audio for power
* Microcontroller has to record the video as well as audio

16.  Power Interface – batteries, power supply,  USB, …

a.       How much power?

* Power needed in microcontroller, camera, audio, wifi
* Power is needed to the phone
  + What happens when the phone is dead
* Power consumption
  + How much power will the phone need to take out when this works
  + The overall power consumption of the system
* Power supply
  + Plugged into the house in the home?
  + Battery power
    - Will it have to be replaced?
  + Wired into the house by a switch to turn it on?

22. What happens when you miss the call or hang up, can they leave a voice message?

* **This is a feature**
* Is it going to send a phone call voicemail?
  + We will need to get a telecommunication for the microcontroller
* Will it send a notification to the phone, like a message how?
* Or do nothing if hanged up

23. Original function of the door and key hole

* Any modification to the door will not mess up the system
* Needs to be adaptable

22.   What happens with weather?

a. Lighting Storm

* **This is a feature**
* When power goes out what happens to the system?
  + Battery backup doesn’t work

b. Rain

* Requirements
  + Components that are on the door must be waterproof or water resistance
* Components
  + Camera
  + Audio
  + Not sure what else will be on the door

23.   Position of Camera and Microphone

* Requirement
  + Must not change how some is interacting with the door

24.  Anything happen if they knock on the door?

* **This is a Feature**
* Requirements
  + Should act like the doorbell
  + Does not affect the system if this is not added