* Consistency
* Price
* Power Consumption
* Speed
* Power Consumption
* Usability
* Reliable
* Difficulty
* Security
* Speed
* .WAV
* .MP3/MP4
* Compressed?
* Speed
* Power Consumption
* Usability
* Card Scanner
* RFID Cards
* QR Codes
* Fingerprints
* Microcontroller
* Phone
* Laptop
* Tablet
* Wired Ethernet
* WIFI
* Bluetooth
* USB
* Serial
* Speaker
* Audio Out
* Microcontroller
* Phone
* Laptop
* Tablet

**Input Device**

**Input Processing**

**Communication Protocol**

**Output Processing**

**Output**

Andy and I (Matt) were thinking of some ideas.  This is a rough timeline of how we can get their recordings how things will work on graduation day.

1. Email all CSE seniors and have them record their names on a website that will store the recordings in a database.
   1. These will help the announcer say their names correctly when we record them.
   2. The announcer will still do a recording of names they don’t have reference for so everyone’s name is recorded.
   3. We should also ask for their student id number incase the tag reader doesn’t work or they lose their tag.
2. Announcer makes final recordings of everyone’s names.
3. Distribute rfid tags to everyone when they check in for graduation.
   1. Tags will already be associated with the person and their recording in our database.
4. On graduation day the student will scan their tag as they walk onto the stage and the tag number will get sent to a computer with the database stored locally and will send a signal that the name was found.  If the name was not found, it will send a signal back to either rescan or enter the student’s id number.  This should cover the scanner not working and if the student loses their tag.
   1. scanner hardware: rfid tag reader, wifi or bluetooth transmitter, keypad, LCD screen or just status LEDs
   2. scanner software: firmware for keypad, leds, screen, tag reader, wifi transmitter.
   3. PC hardware: wifi or bluetooth receiver, audio output to speaker system
   4. PC software: backend for reading data from scanner, searching the database then sending a response back to the scanner.

This is just an idea just to get things going early.

Also think about what aspects of this you’re interested in.  We need a web app for gathering the recordings, backend for the database, hardware for the scanner, and firmware for the scanner.  I am a hardware/firmware guy and would like to work on the scanner but let’s see where everyone’s strengths and interests are so everyone has something to work on.