## 1. Name of team members.

2. Link to Trello page.

3. Link to team GitHub page.

4. Real world problem identified.

5. Initial brainstorming ideas.

6. Final Internet of Things idea and solution.

7. Potential future development ideas.

8. Technical, team another problems encountered.

# Internet of Things: Assignment 1

1. Group Name: IOTAFCR

Andrew Casey, Fiachra Sheridan, Cormac Sheridan and Rory Mc Cafferty.

1. Trello Link:

https://trello.com/b/XWCN8cnS

1. Team Git-hub Link:

N.A.

1. Real World Problem Identified

We were tasked with finding and solving a problem that we did not know even existed yet. We started with a brainstorming session where we passed a few ideas back and forth to find out what actually sounded like a good idea and would also be fun to attempt to create. Many ideas were passed back and forth. Some were simple, some sounded far too complicated. We settled on a few ideas that sounded relatively possible to create and majority vote ruled supreme. We had an idea.

1. Initial Brainstorming Ideas

For students just starting out on an Arduino Yun we were creating some crazy ideas (from remote gun turret drones to sensor alarms that might go off and scare people as they pass an area). We picked our few most realistic and problem-solving ideas we had together to vote on what we should attempt to create.

The list of these included a tone player that could be voice activated that would play fantasy tunes for people that would play Dungeon’s and Dragon’s. For example, they would enter a battle and you could call the device to play a dungeon type song. It would then look through a list and play one for you.

We had a sensor for your heating when you get home. It could activate in several ways, one being through the internet or just by your phone when you get back it knows your home and could turn on.

We had a few other ideas that just didn’t seem to cut it in the end since we went with the D&D tune player idea. Majority vote rules and most of the group played D&D and had fallen in love with the idea.

1. Final Internet of Things Idea and Solution

Part 1. The music

Much research was needed to find out how to play music on the Arduino Yun. Google being a good friend we typed in some information like Arduino Yun Music to find out how this device could be used as a glorified monotone epic music player that every good D&D group will need in their arsenal. As programming students learning to code, we plan on doing as much of the code as we can, but the resources provided and time restrictions we would need to look up some ideas and codes to get a rough idea of where we can apply our skill in creating the code for a working prototype is vast.

Part 2. Do we attempt voice activation, or do we go with buttons?

Researching into voice activation seems to be well beyond a “let’s learn” first project but does seem to be a subject for future projects, once we are skilled enough to come back to.

Button activation would seem to be the simpler idea.

A next/back button and at least one more button to start/stop would be required with possibly a few more for other functions if needed and we have the resources/time to do so.

Part 3. A screen for navigation would be needed

We would need an LCD screen to show what song we are on and where we go next, what is playing, etc.

1. Potential future development ideas.

Needs Filling

1. Technical, team, and other problems encountered