IoT Project 1 - Deliverables

**Student Name:** Rebecca McGlynn and Marek Kiejza (Dream Team)

**Course: Internet of Things**

**Student ID Number:** S00173508/ S00173510

**Project Title**: Heater Monitor

**Background / Introduction**

The domain or field in which the background for our project is based is on the Internet of Things. The smart home and making improvements to its design is where we did most of our research. Smart homes filled with connected products are loaded with possibilities to make our lives easier, more convenient, and more comfortable. The first and most obvious benefit to smart homes is convenience, as more connected devices can handle more operations (lighting, temperature, etc.) and frees up the resident to perform other tasks. Of course, there are disadvantages, as well. Smart home devices are typically more expensive than their non-connected counterparts, so consumers would certainly feel the hit in their wallets at first. The smart home market will take off if IoT device prices come down and the general public comes to understand the benefits of these products. And from smart homes, the next logical step is [smart cities](https://www.businessinsider.com/internet-of-things-smart-cities-2016-10), which would take the IoT to the next level.

The motivation behind the questions for our thesis is the long suffering Irish mother and the long unanswered question who left the emersion on?? Leaving the emersion on causes your home to use more electricity and therefore a bigger electric bill. We wanted to come up with a remedy for this to make life easier. Some of the questions we would ask are the following: Can we remedy this problem by monitoring the temperature in the hot press where the emersion is housed? Can that monitoring result in an alert being sent to the home owner to allow them to remedy the situation (turn off the emersion)? Can the data we record from this monitoring allow the home owner to find out at what time and maybe in turn who is leaving on the emersion?

Provide some background on the domain or field in which your research will be situated. Provide the context which will make the motivation for your thesis question obvious.

An ‘Internet of Things’ application should have a physical hardware element (a thing) as well as some data being processed through an Internet platform to solve a real problem.

**Requirements**

**Hardware:**

* Arduino Board
* Temperature Sensor: (used to detect environment temperature).
* Grove Cables
* DIP LED Red-Red
* USB Power Lead
* Wi-Fi Connection

**Software:**

* Arduino
* Temboo
* Trello

**User Requirements:**

* Hot Press with Emersion
* Power source

What requirements will your project address? Some areas to think about: hardware, software, user requirements etc. These requirements need to be documented at the start of your project. You can decide how this should be achieved e.g. a Trello board, a requirements document.

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**...Methodology**

You will need to document how you went about addressing the requirements identified above. What steps were involved? How did you track your progress ,

* Implementation
* Testing
* failing
* getting back on the horse

**Screenshots of working application and Pictures of Physical / Hardware Setup**

**Success Criteria for Project Completion**

How will you know you have met the requirements for this project?

**References**

What research sources helped you in putting this project submission together?

**Source Code**

Please provide the source code of your application as an appendix

**Project Milestones**

**Project Plan:**

Trello Board showing project tasks and dates and/or Gantt Chart showing main project milestones