

Wireless Sensor Networks

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INTRODUCTION

The project shown in this poster is about wireless sensor networks that can pick up the temperature of the room and adjust the heating or air conditioning of the room.

AIMS

The aim of this project is the creation of a wireless sensor network that can detect the temperature in the room and operate a heating unit that can then change the temperature of the room according to the reading from the sensors.

OBJECTIVES

There are a couple objectives that will need to be completed during the course of this project and they are;

- Creating a simulated version of the wireless sensor network
- Creating a physical version of the simulation
- Run the wireless sensor network over the course of a week to collect data
- Analyze data gathered from the experiment.

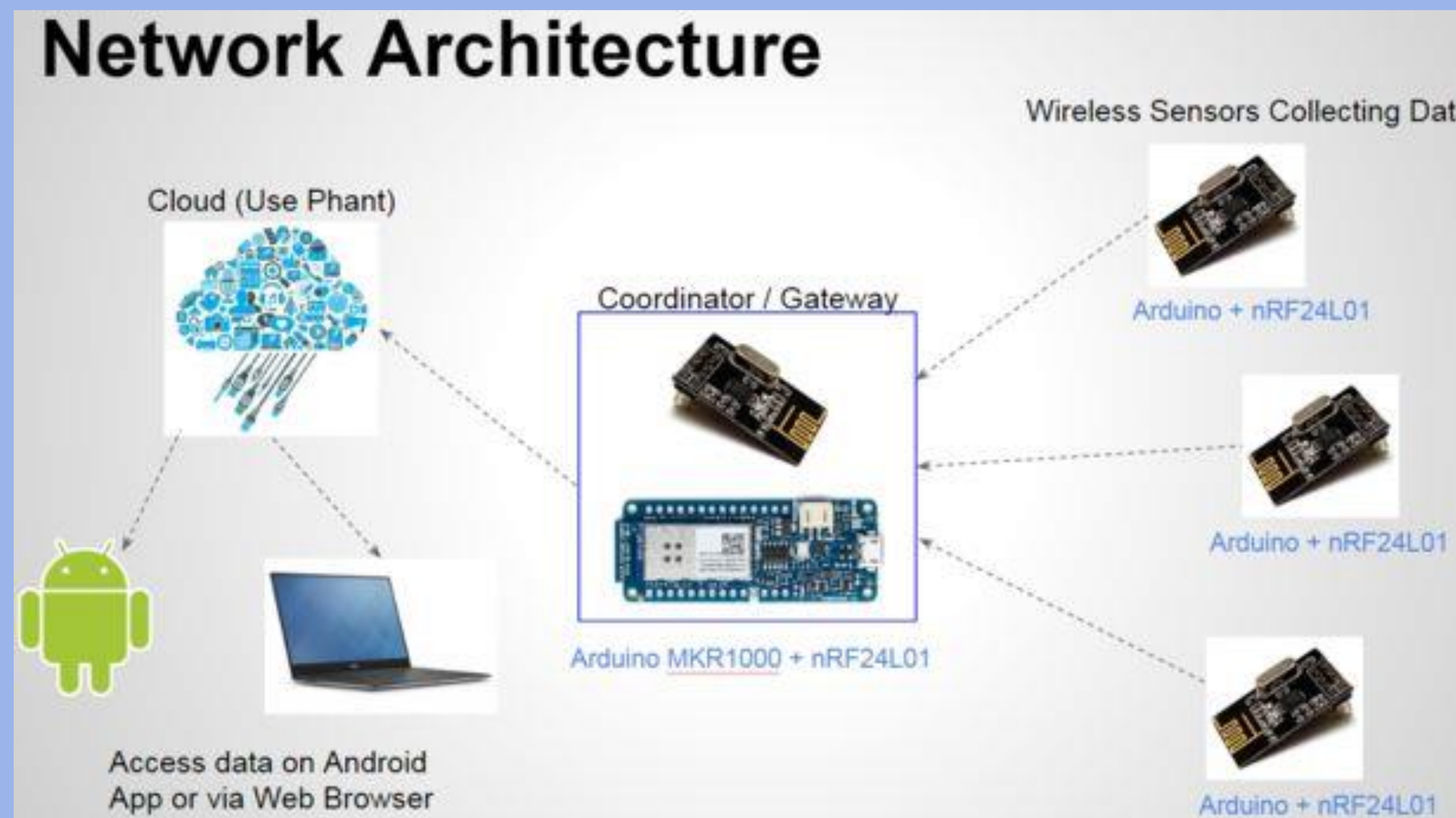


Figure 2: Wireless Sensor Network Architecture [3]

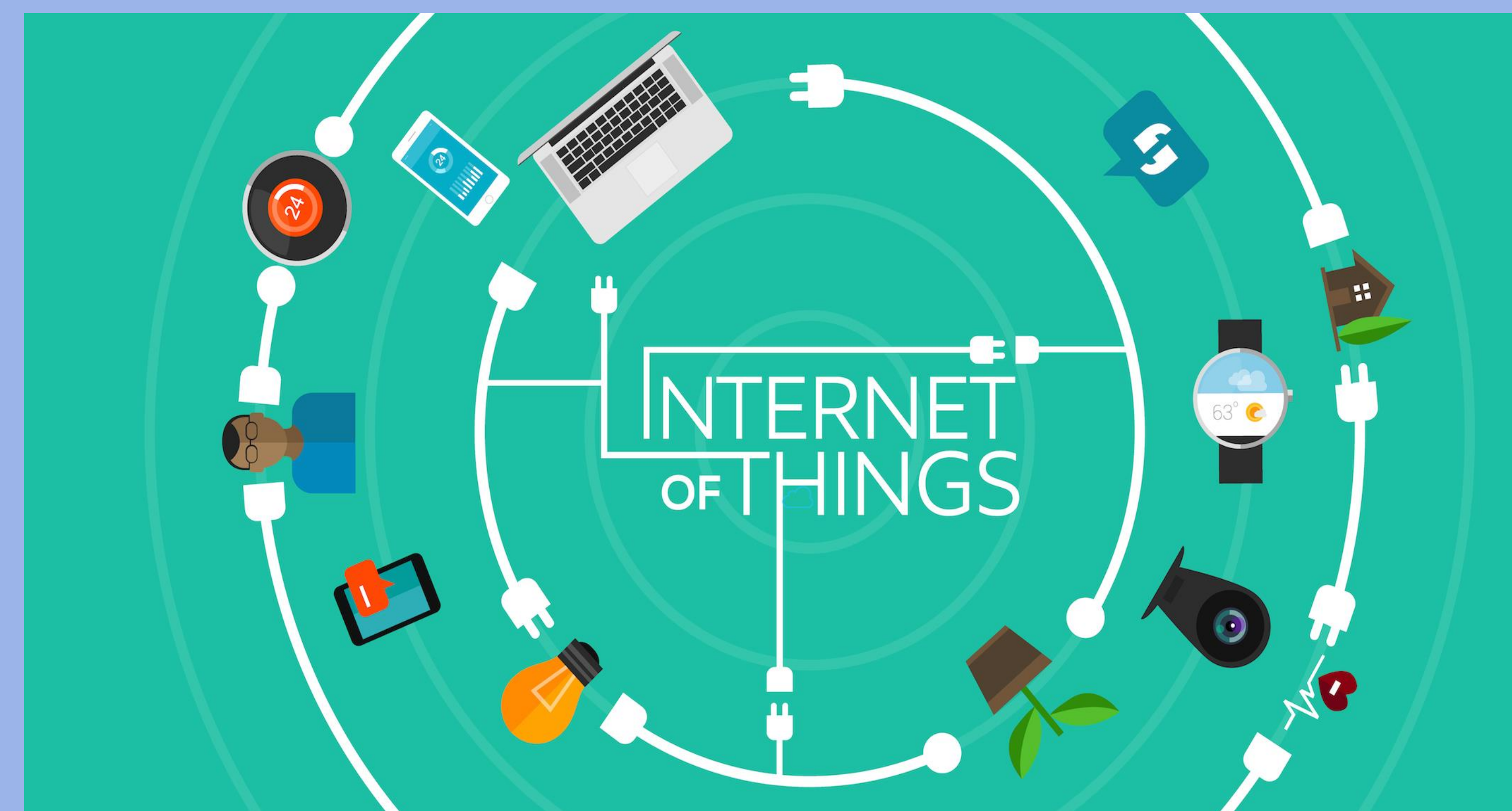


Figure 1: Internet of Things [1]

RISKS

There are a few possible risks with this project. One of the risks is that if any on the equipment being used doesn't arrive on time or breaks it will push back the completion of the project. Another risk for the project is if the chosen environment for the project is unavailable the project will be pushed back while a suitable replacement is found.

RESOURCES

During the project there will be a few resource that will be utilized to make the project. The first being NetSim that will allow for the creation of a model network to test it before making the physical version. The other resources used will be the physical sensors and switched that will be used during the creation of the physical network.

REFERENCES

- [1] <http://blog.attify.com/2017/06/09/awakening-iot-security/>, Internet of Things, Date accessed 04/10/17
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- [3] <http://www.instructables.com/id/Building-a-Cloud-Connected-Sensor-Mesh-Network/>, Wireless Sensor Network Architecture, Date accessed 05/10/17
- [4] Chris Guy, "Wireless sensor networks," Proc. SPIE 6357, Sixth International Symposium on Instrumentation and Control Technology: Signal Analysis, Measurement Theory, Photo-Electronic Technology, and Artificial Intelligence, 63571I (24 October 2006);