WASP
Wireless Arduino Sensor Protocol

Group SW513E15

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Synopsis:

Synopsis her!

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Contents

1. Project introduction

This is an introduction.

Communication technology can today be seen as a foundation for wide range of technologies. Devices today can communicate with each other in many different ways, and can take part in large and small networks alike. This report resolves around embedded systems and how communication can be established between these. This focus point is quite broad in terms where it can be applied, so this report will make use of a specific usecase to showcase the communication between embedded systems its applied usage.

The usecase that will be in focus throughout the report is the moisture of a golf course, where multiple devices will relay information about the earth's moisture levels to a central unit. If a device is placed out of range from the central unit, it will need to send the its data reading to the central unit by using other devices within reach.

To ensure that the data will reach central unit, and ensuring that the data is still correct/usable(?), a sufficient protocol must be found/established to verify this. The protocol must be able executable on the embedded devices.

1.1 Initializing problem statement

How can a sensor network and a protocol be designed, so that data can be relayed throughout the network, enabling an endpoint device to receive the information without being within range of all sensors in the network?

Part I

Analysis

The analysis will discuss and look into the different aspects of the initializing problem formulation and the topics therein. The sections in this chapter blah-blablah..

2. Context

3. Use case

The purpose of this project is to create a protocol that allows multiple Arduinos to share data to a single endpoint, but a use case is needed to test the protocol.

The chosen use case for this report is soil moisture sensors for use on golf courses. A golf course is usually very large, and covering an entire golf course with cords would be a big task. Furthermore this would make the system hard to extend and almost impossible to make hot pluggable.

This makes this project a good use case for golf courses, as soil moisture is important in determining where it is necessary to water the course.

4. Technologies

We shall look at some existing technologies now.

4.1 Mesh networks

4.2 Wireless communication

4.3 Communication protocols

5. Problem Statement

Very good problem statement for you, my friend. Special prize.

Make a good sending data network for arduino.

5.1 Requirements

There are some requirements to the system and its software. These are split in two categories: functional and non-functional. This is based on some smart guys work [**keylist**].

5.1.1 Functional requirements

The list of functional requirements:

1. Actually run is an important part to passing the exam

5.1.2 Non-functional requirements

List of non-functional requirements:

1. Looking good is not a bad thing.

Part II

Implementation

6. Theory

7. Design

8. Implementation

9. Test

Part III

Conclusion

10. Reflection

oh..

10.1 What have we done!?

11. Summary

ok..

11.1 It ended like this

12. Future Work

Here's what's missing..

12.1 To be done

Part IV

Appendix