

Requirements Document

Project: *Liberty*

Task: *One-way wifi communication*

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2.0 CAPABILITIES

2.1 *PURPOSE*

The purpose of one-way wifi communication is to allow the robot to receive data quickly and efficiently, to then proceed to follow the instructions contained in the data.

2.2 *SCOPE*

The robot is limited to using the wifi adapter included in the mindstorm kit. See **CON - GEN - 3.1.2.**

2.3 *CONSTRAINTS*

The one-way wifi communication must accept a total of 18 parameters and store them in an efficient data structure, which will later one be used to set these parameters. Furthermore, the system should be able to receive the data in 20 seconds or less.

2.4 *USER FUNCTIONS*

The user will not be able to interact with the system during its execution. After all of the parameters have been received, the user should be able to start the game through the wifi server interface. No can be pressed to start the robot.

2.5 *OPERATING ENVIRONMENT*

The system will only be used at the beginning of the game, once the instructions are sent out.

2.6 *PERFORMANCE*

The system will require time to load the program and connect to the server through WIFI. However, once the system has received all of the parameters it should start the moment the user initializes the execution of the round.

3.0 COMPATIBILITY

3.1 COMPONENT RE-USE

Source code for the WIFI communications is provided and will be re-used.

3.2 COMPATIBILITY WITH THIRD PARTY PRODUCTS

N/A

4.0 GLOSSARY OF TERMS

Note that this document should be reviewed with the “Clients” and should be developed in conjunction with them.