Team Name: Honey Badgers

Date: 10/28/2016

Team member name and ID:

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Target accomplishment by the report date:

By the date of this report we planned to establish a connection between two arduinos communicating across XBee radios configured in API mode.

Actual accomplishment by the report date:

Our planned accomplishment was achieved. Initially we were only able to connect the radios using AT (Transparent) mode. Later, we were able to connect the radios using API mode, but only using the 2.4 GHz radios. Finally, we were able to connect the radios using API mode on the 900 MHz radios and send an integer value from sender to receiver by means of an array of 4 bytes.

The LEDs shown in the pictures on both the sender and receiver sides provide status and error messages in the form of timed blinks because serial access is not currently available.

Analysis of the progress:

The achievement of connecting the radios using API mode was not trivial due to a lack of documentation on the internet. We consider this milestone to be somewhat major and pertinent to the remaining endeavors of the project. We are not yet finished with this stage however, because we are currently only sending a single integer. We still need to work out how to send more complex data which is the goal of this weekend.

Once we solve the problem of sending complex data, our next step will be to port over the receiver code onto a Raspberry Pi. This way, we can facilitate a web server that can receive data from the sender in addition to user interaction and other complex logic, before responding back to the sender with its own commands.

System picture: