This is the longest code (1000+ lines) and this is the code used to program the CENTRAL HUB. All parts of this code have been thoughtfully designed and programmed by me alone. Just the library of virtual wire has been imported from an open source environment.

This code makes the controller at the Central HUB wait for some data to be received on its input serial port. When a serial input is received, It decodes the encoded command and checks for which node is the command. It the attaches the appropriate address of the node to the command and sends an semi encoded message over the Radio Frequency transmitter.

After sending the signal, it checks for a number of times if the node had send back any feedback and waits for it, after waiting for some time, it sends out the command once again over Radio frequency and waits. This process continues till the node sends a feedback or the timer runs out.

In case the timer runs out and sill no feedback has been received by the node, the controller of the central HUB raises an alarm, which can only be reset if that particular node sends a feedback.

Each node has been carefully accessed and different code has been written to maintain the handshake protocol with different node. The accuracy and reliability of the system is all due to this huge code.