This week, I worked more on tweaking the backup sensor and picking up the signal with the receiving circuit. I have the transmitting circuit now operating at 40kHz but am still having trouble amplifying the signal when it gets to the receiving circuit.

I also started looking at the PN532 RFID board which I purchased a few weeks ago. It is not the most updated model, but still shouldn't pose any major problems. The largest issue is that instead of being able to directly attach the board to the Arduino using headers, we will have to lay it next to it and have wires attaching the two boards. This doesn't minimize space but we think we should have enough anyway. I have downloaded the library needed for the chip and have begun to look into coding.