# Week 5 Hardware Progress Report

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- A wire on one of the motors had detached and therefore the first thing to be done was to reattach the wires in place so that the software team was able to test.
- Started printing the pieces for the case managed to print 3 more out of the original 5.
- We forgot to add a hole into the base of one of the right hand side pieces of the case and therefore we had to use the drill to create one. The measurements we had was that the screw we would be using would be 3mm in diameter and therefore drilled the hole to be 3mm in diameter. This ended up being to big however as the hole was too big and when screwed into the base of the robot it was too lose. To fix this we put a long thin piece of plastic into the hole with the screw to take up the extra space and this meant that the screw was able to be secured properly.
- After having printed the two pieces for the right side of the case we realised that the pins in them would not line up properly with the back piece. Due to time restraints we will not be able to fix this problem and therefore will have to create the case without the back panel.
- To secure the two side panels from the right side to the top plate of the case we used the hot glue gun. We also used the hot glue gun to fix a split in the side of one of the side panels which occurred when we were screwing it into place.
- After gluing the pieces into place we found that the door did not work properly and would detach from its pins once opened past a certain height. This was found to be because the top edge of the door came into contact with the top plate and would be pried off. To fix this we filed down the edge of the top plate so that there was a sufficient gap between it and the door and this fixed the problem.
- We wired two IR sensors into the PI, connecting one to the A0 port and the other to the A1 port. Then we were able to secure one of them onto the right side of the case that was already printed and constructed.
- As the rest of the case has not been printed or secured yet we temporarily secured the wires down using masking tape, ensuring they are well contained.
- For aesthetic appeal we previously decided to make our robot to look like Wall-e from the Disney movie Wall-e. To achieve this we bought multiple colours of paint and painted the case parts that have so far been printed. We started with white, then yellow and finally brown and red for rust.
- Some of the paint went onto the pins on the side of the case next to the door which the door rotates on which means they are slightly thicker. As a result they fit more securely into the gaps in the door panel and the door rotates better.

- Reason for not putting pi on the base was to leave room for the battery pack.