

LONGER WRITING TASK 2005

LEVEL 7 AWARDED

ROBOT PROGRESS REPORT

The fully working version of the robot is almost complete. Many adjustments have been made to the previous model and the robot is working better than ever.

One of the key problems which my team of engineers and I have managed to sort out was that of squeaky joints in the robot's arm. I am very pleased to be able to say that we have reached a solution. First of all, we tried applying oil to the joints. This seemed to solve the problem but proved to be only a short term solution. It became clear we would need something a bit more radical. That was when we hit on the idea of gel packs. We inserted the gel into some round packets made of thick plastic. These were then built in to the robot itself, put between the joints, so that the arm does not directly touch the socket, this appears to have stopped the problem completely, with far better results than we had hoped for.

Another problem of the disposal pack becoming full too soon has been solved. The disposal pack is now going to be stored on the outside of the robot, and a new bag is being processed which is slightly elasticated, so it does not protrude unless it is filled with rubbish.

Many functions are currently working well. We are pleased with these and have finished testing them. At the moment, the robot is able to: sweep floors, dust, clean, Hoover (vacuum) and polish. We believe that these functions are essential to the housework robot we are creating. All of these chores are fairly simple to program in to the robot, yet people hate doing them and there will

probably be a big market for a robot that has the capability to do these chores.

The sweeping functions, for example, can be used to sweep floors, front gardens, pavements and even ceilings. The robot is able to use the built in vacuum function in order to attach itself to the ceiling. It will then proceed to vacuum and sweep any ceiling, clearing dust and leaving a bright clean surface. We are extremely pleased with this function. It can be programmed to turn on automatically when dust is sensed. Alternatively, the user can tell the robot where and when to Hoover. A high tech, built-in sensor, can recognise objects, even if they are small and does not vacuum them. If a room has a lot of objects on the floor, the robot will clear the floor first.

We are still working towards improving the painting function of the robot. During testing, this proved to be very messy, and we found that the painting was not necessarily smooth when finished. The robot did appear to have trouble co-ordinating brush strokes over a long period of time. However, we do not feel this is a major disaster. We are ahead of schedule, so we expect to have more time than expected with which to test, improve and evaluate the product.

We have not yet decided on a range of colours the robot should be available in. Neither has a final decision been made about the name of the robot. The possibility of a consumer self-programming function is being discussed. This would involve the consumer being able to program or “teach” the robot new chores. You will be updated when the team and I reach a decision in this matter.