

A1: Robot Tasks

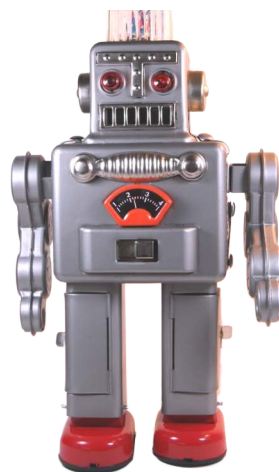
1001-act1 Introduction to Electronics

Summary

In this activity you will learn how smart humans are compared to robots and how much we take for granted. Today's best robot could not complete the tasks as easily as you might think.

This is because robots have no common sense or Worldly experience on which to draw.

For this activity imagine you have a human like robot that will follow your instructions literally and exactly as presented to it. To the right is a list of tasks and you will choose a task and give your robot a set of steps required to undertake the chosen task.



But keep in mind the complexity and assumption in even the simplest task. For example the task: "go and catch the bus" for a human would mean go and get into the bus, sit down, and ride it to your destination. From a simple robots perspective it would be just as valid for the robot to stand in front of the bus and attempt to catch it like a ball. In this case the robot still 'caught the bus', just not in the usual manner, but it's still a valid interpretation of the task.

What You Need

- Pen and paper

Instructions

1. Name some common tasks you think would be easy for a robot and explain why for each. Then name some tasks you think would be hard for a robot and why.
2. In your group of two, select a task from the list on the right hand side.
3. Over the next 10 to 15 minutes write the steps that your robot should complete in-order to achieve the selected task.

Task List

Choose a task from this list for your imaginary robot to do:

1. Run a hot bath.
2. Take the dog for a walk round the block.
3. Go and make a cup of tea with milk and sugar.
4. Go to the Dairy and get some bacon and eggs.
5. I am hungry. Go to the supermarket and get me some chicken.
6. I want my Wellington's from next door.
7. Take the car to the football game and pickup Sally.
8. I'm hungry, please feed me.
9. Clean the house.
10. Air the sheets outside.
11. Give the dog a bone.
12. Go and catch the bus.
13. Take the train to Wellington.
14. Protect Sally from the crane.
15. See what the neighbours' beef is about?
16. I want to go clubbing in the city.
17. Go to the shop and get me a magazine.
18. Stop that boy being killed by the crane.

Extension

- Re-do your task using the experience gained and see how you can improve the result.
- Ask the team next to you to create a new task and you do the same for them, then swap tasks and produce the steps required.