

Introducing Otto

Members

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Practice commands:

We had to program Otto to walk around a square and return to his recharge station.

1. Stand up
2. Step
3. Step
4. Step
5. Turn
6. Step
7. Step
8. Step
9. Turn
10. Step
11. Step
12. Step
13. Turn
14. Step
15. Step
16. Step
17. Turn
18. Sit down
19. Stop

Summary:

It didn't take our group very long to solve this problem, we got it on our first attempt. We found it quite easy as it was quite basic. We started off by looking at the list of commands and deciding on which ones needed to be used to get Otto up from his seat around the square and back on his seat. We had to work out how many steps it would take Otto to get around each side. It took him three steps to get around each side. With this knowledge we had to take the turns into account. After every turn we would take three steps. It got a bit tricky when we got Otto back to his seating area. We weren't sure if he needed to be facing forward to sit down. We decided to turn him so that he was facing forward. We were right and Otto sat down. We were able to find out the command for this problem easy enough by drawing it out in our refill pads and by acting it out in class.

Easy commands:

We had to program Otto to walk to a wall which could be any distance away and then have him return to his recharge station.

1. Stand up
2. Raise arms
3. Check wall
Y = Go to 6
N = Step
4. Add to memory
5. Go to line 3
6. Turn
7. Turn
8. Test is number equal to zero
Y = Go to line 11
N = Step
9. Subtract one
10. Go to line 8
11. Turn
12. Turn
13. Lower arms
14. Sit down
15. Stop

Summary:

We had some trouble at first in figuring out how to program him to walk to the wall and back which could have been any distance away but we figured out that we had to use the go to command and program him to keep his arms up to feel the wall, and also use the “Test is number equal to zero” command to find out how close he was to his recharge station. It took a while to get it all right but we eventually managed to successfully get Otto to walk to the wall and have him return to his recharge station.