

Program a Friend

Objective: Can you build an obstacle course, then “program” a friend around the obstacles?

Materials Needed:

- Large open area
- Supplies to use as obstacles: signs with numbers that students must go to
- Blindfold
- Pencil/Pen
- Paper



To do and notice:

1. Clear a space outside.
2. Follow numbered signs 1 -5/6 in the space following the instructions of the sign.
3. Blindfold your friend. Using step-by-step instructions, guide your friend to each numbered sign. Try not to hit any obstacles. You can make corrections as your friend moves.
4. Write down each step it would take for your friend to move through the course.
5. Give your instructions to your friend, and have him/her navigate the course again. Did he/she hit an obstacle? If so, change the instructions and try again. Keep repeating this process until they make it all the way through the course without hitting anything.

Going further:

It is easy to make mistakes when writing programs for robots. Programmers write a program, and then test it to find mistakes. If a bad instruction is found, they fix the problem and retest the program until it works correctly. This is called iterative testing. (Iteration is the act of repeating a process with the aim of approaching a desired goal, target or result.)

Create a Pseudo code step by step algorithm on how your team programed your friend

Step	Function	Results
1	Find Course	The course in the ?
2	Put on Blindfold	
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Robotics 3-16 Name in Group (first and last

Group # _____

Step	Function	Results
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Observation Note, anything noted that did or didn't work: