

STEP Technology Initiative Questionnaire Summer 2003

Dear Student:

Congratulations on successfully completing STEP. Please take a few moments to answer the questionnaire and return it to your teacher. Your answers will be kept confidential and will be used only for research purposes.

Enjoy the rest of the summer!

The Robotics Initiative Team

1. Information

Your name:

Age: Grade: Email: (Optional)

Gender: Male female

2. Background

How did you come to join STEP?

Do you plan on attending college? Yes No

If yes, what do you want to major in? _____

3. Previous Courses

Indicate the number of high school courses that you have successfully completed in the following subjects.

	Number of Courses				
	⇐ ○ ○ ○ ○ ○ ⇒				
	0	1	2	3	4+
1. Mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Computers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Robotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Course Interests

Based on your experiences, please indicate your level of interest in the following subjects.
(N/A = Not Applicable, 1 = Very Low, 2 = Low, 3 = Neutral, 4 = High, 5 = Very High.)

	N/A	VERY LOW 1	2	3	4	VERY HIGH 5
				⇐ ○ ○ ○ ○ ○ ○ ○ ○ ⇒		
1. Mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Computers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Robotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Programming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Personal Ability

Based on your experience, rate your ability level in the following subjects. (N/A = Not Applicable, 1 = Very Poor, 2 = Poor, 3 = Average, 4 = Strong, 5 = Very Strong.)

	N/A	VERY POOR 1	2	3	4	VERY STRONG 5
				⇐ ○ ○ ○ ○ ○ ○ ○ ○ ⇒		
1. Mathematics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Computers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Robotics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Programming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Do you think you could build a robot? Yes No

Have you ever built a robot before STEP? Yes No

6. Computer Use

Does your family own a computer? Yes No

Please indicate approximately how many hours you spend each week using the computer for the following reasons:

	0-1	1-2	3-4	4-5	5+
			Number of hours per week ⇐ ○ ○ ○ ○ ○ ○ ○ ○ ⇒		
1. Looking for Information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Entertainment (Games, movies etc...)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Homework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Communications (Email, IM etc...)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Challenge 2:

Start State

1	3	4
8	6	2
7		5

Goal State

1	2	3
8		4
7	6	5

Arrange the tiles so that all the tiles in the start state are in their correct positions in the goal state. You do this by moving tiles. You can move a tile up, down, left, or right, so long as the following conditions are met:

- A. There's no other tile blocking you in the direction of the movement; and
- B. You're not trying to move outside of the boundaries/edges.

Use the grids below to show your progression from the start state to the goal state. Make sure to write down every step. If you make a wrong move do not erase; just move on to the next grid. Please circle the grids that lead to the final solution. (Note: you do not need all these grids to solve the problem. They are just to give you space to work out the problem.)

