

ADVANCED PUZZLES

ESCAPE THE ROOM

PUZZLE # 6

Study the puzzle on the next page. Help the robot get the key and unlock the door.

Command list:

MOVE (DIRECTION) - moves the robot by 1 square in the given direction (up, down, left or right)

REPEAT (N) - repeats the statements under it for N times. For example, the commands below moves the robot twice.

TURN (DEGREES) - turns the robot by the given degrees

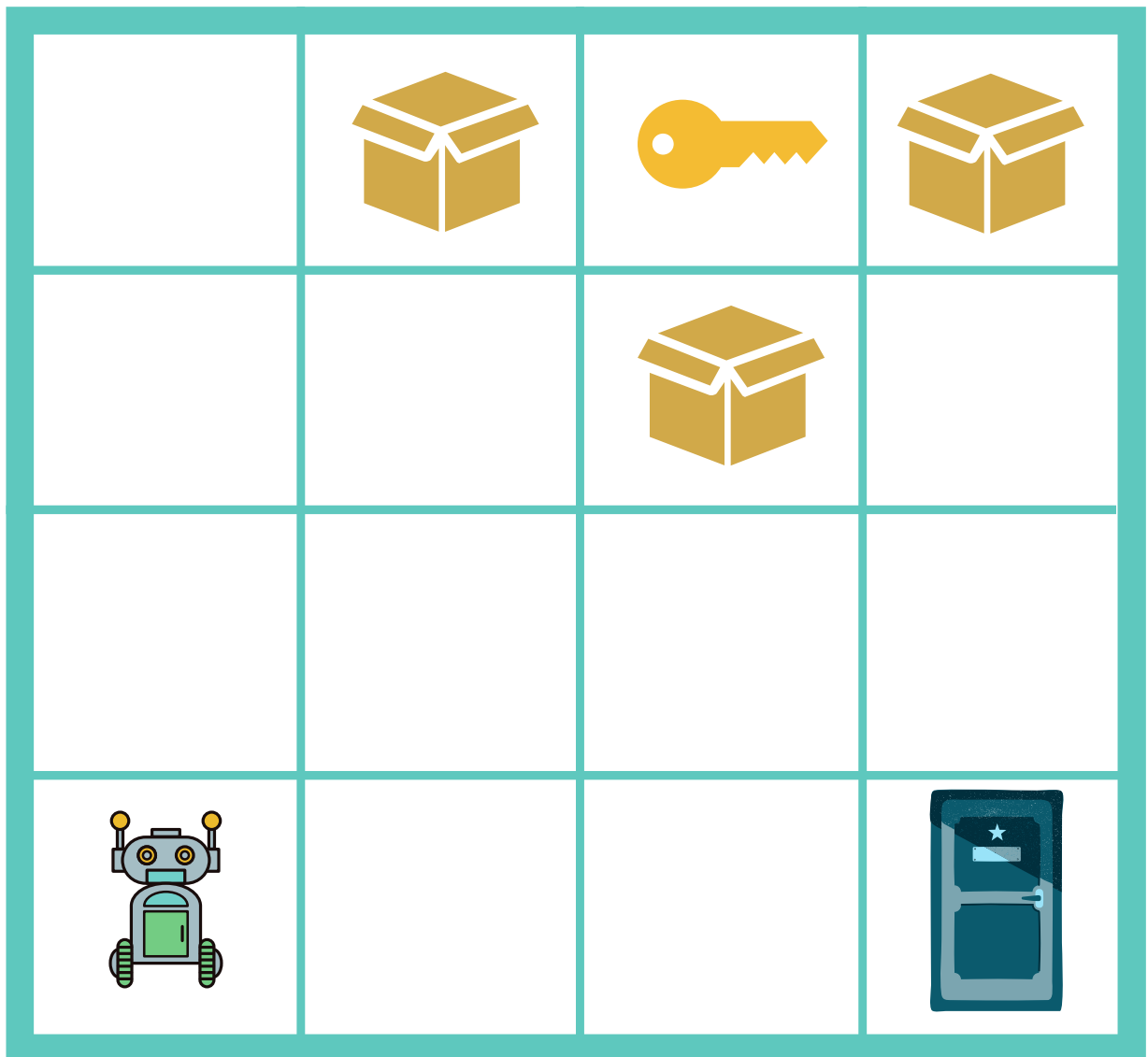
PUSH - pushes an object next to the robot by 1 space in the direction that the robot is facing. The robot will move to the space previously occupied by the object.

Answer:

ADVANCED PUZZLES

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PUZZLE # 6



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PUZZLE # 7

Study the puzzle on the next page. Help the robot reach the door. But be careful - the monsters shoot laser beams straight across unless there is an object blocking its way. There's one guarding the door!

Command list:

MOVE (DIRECTION) - moves the robot by 1 square in the given direction (up, down, left or right)

TURN (DEGREES) - turns the robot by the given degrees

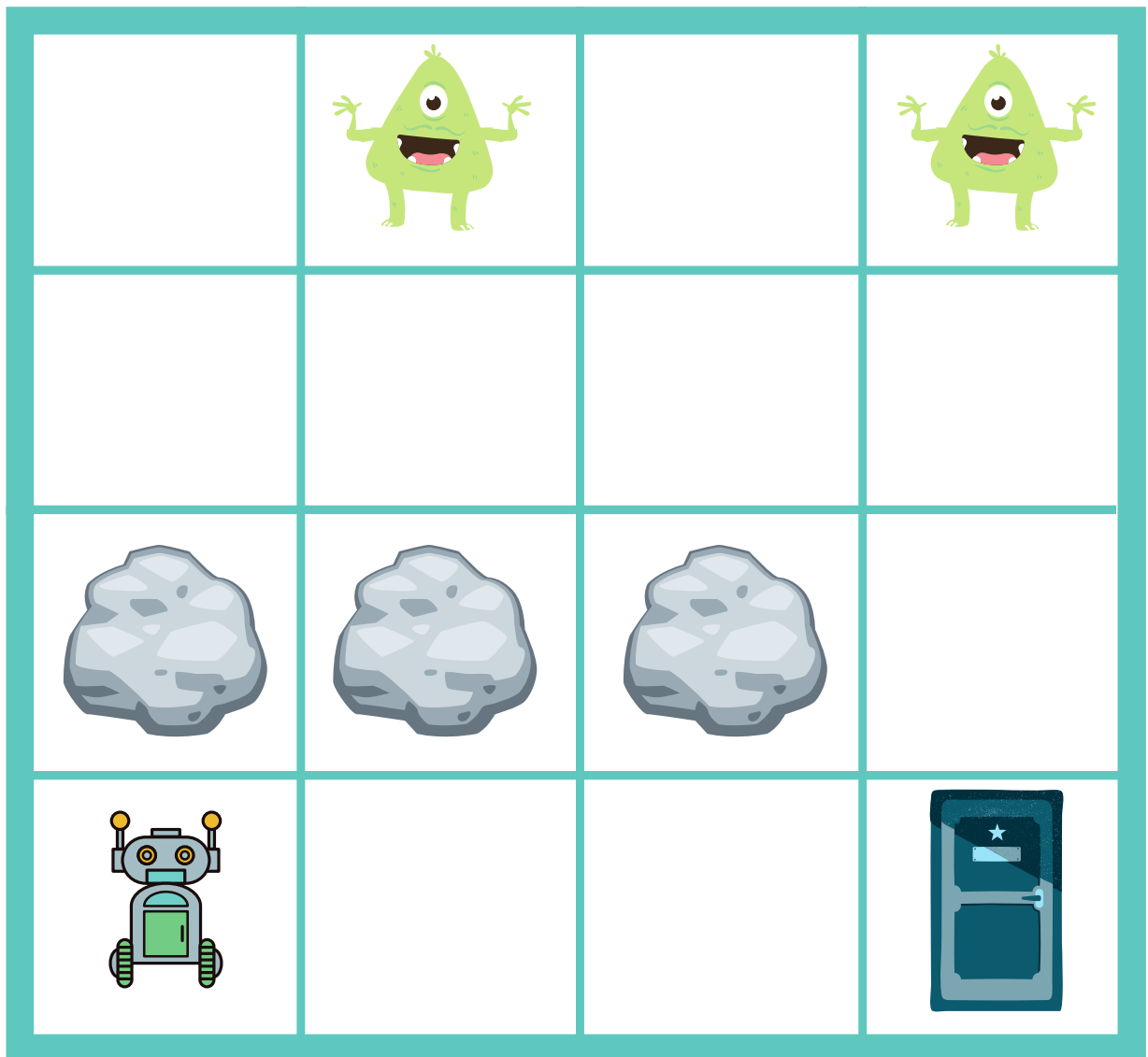
PUSH - pushes an object next to the robot by 1 space in the direction that the robot is facing. The robot will move to the space previously occupied by the object.

Answer:

ADVANCED PUZZLES

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PUZZLE # 7



ADVANCED PUZZLES

MAKE YOUR OWN PUZZLE

You are game developers coming up with a challenging puzzle for others to solve. Your team's task is to design an obstacle course (similar to the puzzles presented in class) as well as a list of valid commands that other teams can use to solve your course.

You will need to:

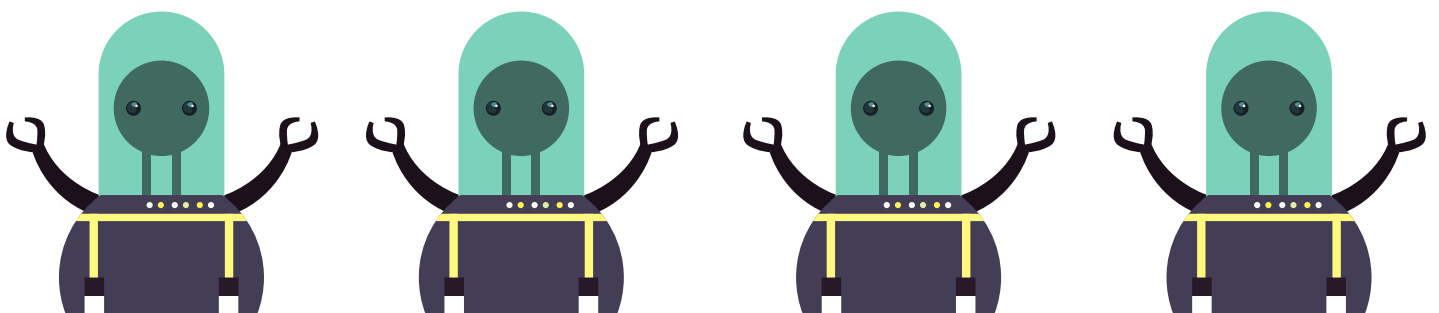
- brainstorm obstacles to be encountered in the puzzle, as well as an end goal
- come up with a list of commands that can be used in traversing your puzzle
- make sure your puzzle can be solved with your given list of commands

Rubrics (Completeness + Complexity):

Team has a complete puzzle, list of commands and solution. _____/5

Puzzle has at least 5 obstacles. _____/5

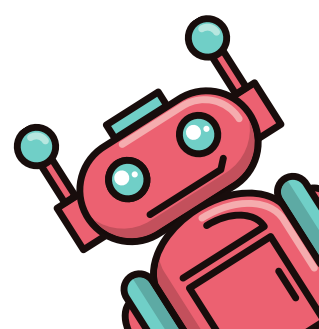
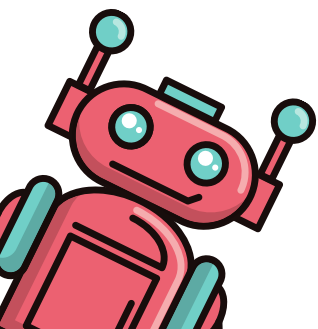
Solution makes use of at least 3 different commands. _____/5



CONDITIONAL STATEMENTS

CAUSE & EFFECT

1. Prepare two containers - one to hold conditional statements and another to hold effects.
2. Ask each student to provide one conditional statement and three different effects by filling out the worksheet in the next page. Encourage them to be as creative as possible. The statements do not need to be related to one another. For example, IF it rains; THEN classes will be canceled; THEN aliens will arrive on earth; THEN kids will eat chocolate.
3. Once done, ask each student to cut out their statements and effects and drop in the appropriate box.
4. Have each student pick three effects at random.
5. Draw a conditional statement and read it out loud.
6. Have 3 students choose an effect from the papers in their hand.
7. Ask the rest of the class to vote for their favorite cause and effect statement.



CONDITIONAL STATEMENTS

IF



THEN



THEN



THEN

