

# TAKE YOUR ROBOT ON A ROAD TRIP!



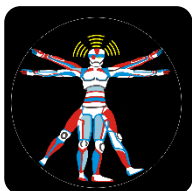
## **CHALLENGE 1: Keep on going...and going....**

**Make a repeating set of commands using a LOOP.**

- 1) Click the plus sign next to the Project button to start a new program. Choose a different name that has not been used.
- 2) Drag and drop the orange block “loop” into the program space.
- 3) Copy the blocks that you used in program 4a and paste them inside the loop button.
- 4) Copy the blocks that you used in program 4b and paste them inside the loop next to program a.
- 5) Your program is setup to run program a then program b, then it starts again from a.

Now we need to set it to repeat the sequence 3 times.

- 6) On the loop block, at the left side there is an infinity symbol (it looks like a big sideways 8) that says “Unlimited” when you mouse over it. Click on the symbol and a list will pop up. Select the **count** option from the list.
- 7) Now the infinity symbol will be gone and there will be a “#”. Beside that symbol is the number 1. This represents the number of times your program will repeat the set of commands inside the loop. Change the number to 3 so that it will repeat whatever you tell it to do 3 times.



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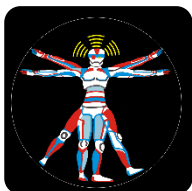
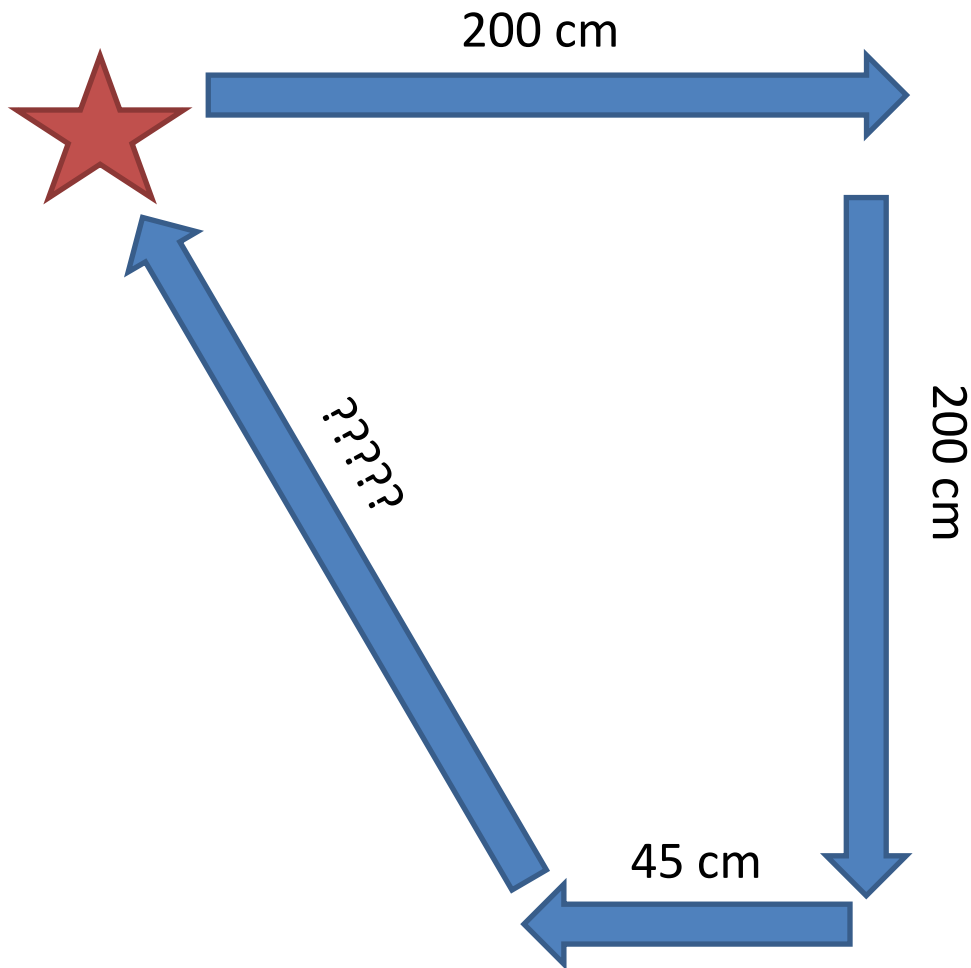
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## CHALLENGE 2: Drive Around The Block

- Below is a course that you need to program your robot to travel.

Notice that the path is broken up into centimetres. *Can you program using distance?*

- What will you need to figure out in order to successfully program your robot to follow this course?



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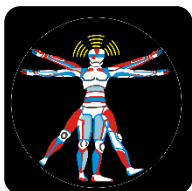
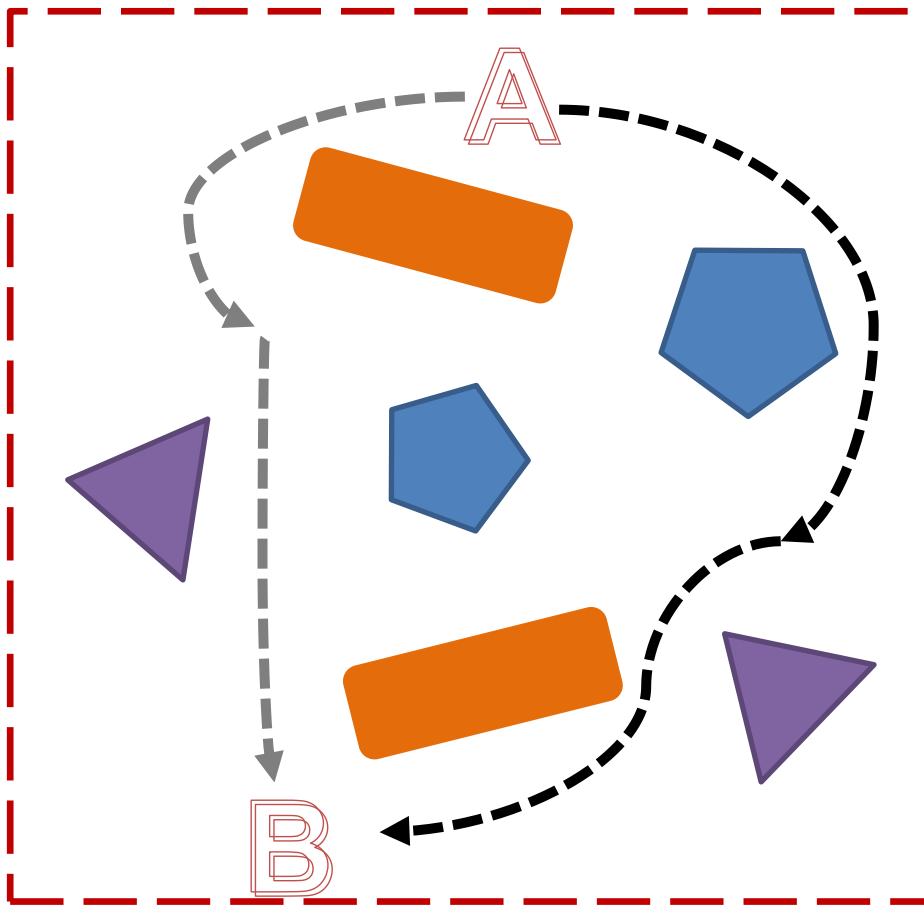
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## CHALLENGE 3: Get Out of My Way!

- An obstacle course is laid out on the floor for you.
- Write a program that navigates the course and moves the robot successfully from point A to point B.
- You can choose to follow any path you want to.
- The only thing you can't do is run into an obstacle, move any of the course around or go outside of the boundary lines.



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