INTRODUCTION TO *JAVASCRIPT* FUNCTIONS

FUNCTIONS

Generally speaking, a function is a "subprogram" that can be called by code outside of the function. A function is composed of a sequence of statements, just like any other program.

Values can be *passed* to a function as input, while the function can also *return* values as output.

To call a function, simply type the name of the function in your text editor followed by a pair of brackets. The values that we want to pass to the function are listed inside these brackets. A standard function call with two inputs and no output looks like so:

FunctionName(input1, input 2);

If you want to read more about JavaScript functions in more detail, check out this resource created by Mozilla:
https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Functions

In this Project, all of the functions that we need to solve our problem have been defined for us. These two functions are MoveArm() and MagneticSwitch().

We can call as many functions as we like, and they will run in order from top-to-bottom, but don't forget to add a semicolon (;) at the end of each line.

MoveArm(X, Y, Z)

The MoveArm() function tells MagneBot to move the centre of its magnetic sphere to the target X, Y, Z coordinates.

This function has three decimal inputs: X, Y and Z. You need to make sure that you include a comma between these three inputs.

MagneBot will automatically calculate the shortest path to reach the new coordinates - this will sometimes cause problems!

If MagneBot is unable to reach the target coordinates, it will ignore that MoveArm() function call and your code will continue.

MagneticSwitch(bool)

The MagneticSwitch() function toggles the magnetic sphere at the end of the robotic arm ON and OFF. You can utilise this functionality to both pick up and drop magnetic objects.

This function has one boolean input. A boolean can only have values of either true or false. You will need to replace the text bool with either true or false whenever you call the MagneticSwitch() function.