U2-2.2 Let's explore input parameters

Every block in EdScratch contains inputs which tell Edison what you want the robot to do. You have probably noticed that lots of the blocks also have input parameters.

Jargon buster

Input parameters are the things you can change inside a block, like the numbers and choices in the drop-down lists. You can think of input parameters as specific pieces of information needed in an input.

For example, if you want Edison to drive forward, you need to give the robot specific information about that command, such as how far to drive and at what speed.

There are three styles of input parameters in EdScratch:

- numbers you type into the block using your keypad,
- drop-down menus where you choose an option, and
- round or diamond-shaped holes you fill with special blocks.

Each input parameter in a block gives a different piece of information that Edison will need to be able to run that command. You can think of input parameters as the answers to questions the robot has about what you are asking it to do. For example, if you want Edison to drive backwards, there are three questions you need to answer:

1. Question: How far do you want the robot to go?

   → Answer: distance input parameter

2. Question: What units are you using to measure distance?

   → Answer: distance units input parameter

3. Question: How fast do you want the robot to go?

   → Answer: speed input parameter

You always need to fill in all the input parameters in a block to give the robot all the information it needs.

Try it out!

The input parameters in a program give you lots of information about what that program is asking the Edison robot to do. Try reading the following programs and answer the questions.

Look at this program:
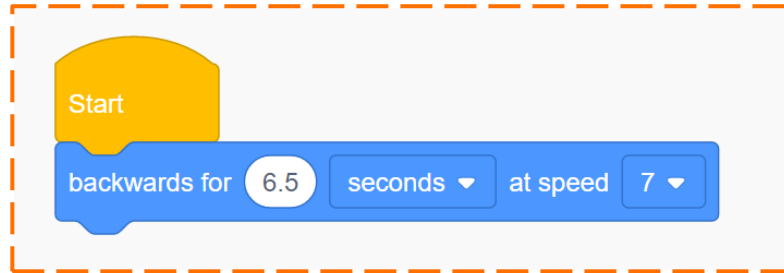
1. In this program, what is the input parameter for distance units?
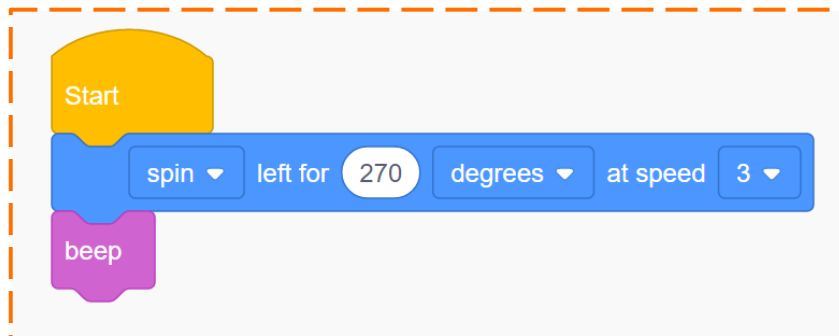
   Sample student answer: seconds

2. In this program, what is the input parameter for speed?

   Sample student answer: 7

3. What is the full program telling Edison to do? Highlight all of the input parameters in your answer in another colour or by underlining or circling each one.

   Sample student answer: Drive backwards for 6.5 seconds at speed 7.

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Look at this program:

4. How many input parameters are there in this program?

   Sample student answer: 4

5. Remember that input parameters are answers to questions the robot needs to know. What question is the spin input parameter answering? *Hint:* you might want to look at the other options for this input parameter in EdScratch to help you think about your answer.

   Sample student answer: What direction do you want your robot to go?

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