

Let's Move!

The image shows the Scratch interface with the 'Scripts' tab selected. On the left, a list of block categories includes 'Events', 'Control', 'Sensing', 'Operators', and 'More Blocks'. The 'Movement Complete' block is highlighted in the 'More Blocks' category. In the main workspace, a script for 'TTS InO-Bot - Advanced' is shown. It starts with a 'when g key pressed' block, followed by 'Spin Right Medium by 45 degrees', 'Movement Complete', and 'Spin Left Medium by 45 degrees'. A 'define Movement Complete' block is also shown, containing 'wait 0.1 secs' and 'wait until Motion complete'. Three callout boxes provide additional information: one explains the purpose of the 'Movement Complete' block, another asks the user to build the sequence and investigate the effects of different degrees, and a third shows how the 'Movement Complete' block is used in the script.

You are going to teach InO-Bot a rule by DEFINING a block of code.

This block can be used to check that InO-Bot has stopped moving. It should be used where a sequence of movement commands are needed. Example below.

Build this sequence. Press 'g'. What happens? Investigate what different numbers of degrees do. Do you have to use the 'g' key?

This shows how the Movement Complete block can be used.

Why do we need a DEFINED BLOCK to make sure InO-Bot stops?

Could you build this sequence:

When key pressed....spin 90 degrees right
....movement complete.....spin 90 degrees
left.....movement complete... forward 10cm
.....movement complete.....reverse 10 cm.....
movement complete.

Could you add LED lights to this sequence?
Remember that you have to program lights on
AND off.

Could you add sound effects to this sequence?

Why will WAIT be important in your sequence?

CHALLENGE:

Make InO-Bot dance!

Remember you can repeat moves using loops. Add sound and lights!