

Pro-Bots

What is a Pro-Bot?

Pro-Bot is a floor robot, cleverly disguised as a race car. Pro-Bot is ideal for children after using Bee-Bot as it can be used for teaching Logo programming and more advanced robotic control techniques.



Pro-Bot **commands** are entered via a set of arrow and number keys. Plan a route for Pro-Bot and press the corresponding keypad controls. Press the GO button and send Pro-Bot on its way. As keys are pressed, the equivalent Logo command appears on the **LCD screen**. When you press the GO button, each command in the sequence is highlighted on the LCD screen as it is executed. Programs can be edited and altered on the LCD screen using the edit keys without having to enter the entire program again. Pro-Bot can hold a **felt-tip pen** in the centre, allowing it to draw as it moves. A PenUp / PenDown toggle makes it easy to turn drawing on and off.

Pro-Bot operates in two modes. Students can transition easily from one mode to another as their skills develop.

1. As "big brother" to Bee-Bot, Pro-Bot can be operated in Bee-Bot mode using only the arrow keys and GO button.
2. In Logo mode, arrow keys can be combined with the number buttons with distances entered for movement and degrees entered for turns.

Lesson ideas on how to use Pro-Bots

1. The children learn how to enter numerical commands to move the Pro-Bot around a floor mat to different destinations, e.g. forward 3 instead of 3 lots of the forward command.
2. The children put a pen inside the Pro-Bot and draw lines or angles on paper.
3. The children learn how to program the Pro-Bot to draw shapes with it (spotting a repeating pattern in the commands they enter).
4. The children draw shapes and patterns by using the repeat command.
5. It can be used to investigate different angles whilst you race around your mat.
6. <http://www.simonhaughton.co.uk/2011/03/programming-the-pro-bot-lesson-1.html>