

Kit's Coding Adventure: Designing a Robot

Learning objective: To understand how algorithms and sequences work by designing a robot that follows simple instructions.

Kit the fox needs your help to design a new robot! Use the drawing space below to sketch your invention. Follow the steps provided to label your robot's key features and show how it follows instructions.

Draw: Draw a friendly, futuristic robot in the centre of a large empty frame. Use a clean, technical style. Include a clear 'Sensor' (like an eye or a radar dish), a 'Processor' box in the middle of its chest, and 'Output' devices like wheels or a robotic arm. Leave space around the robot to draw arrows showing the path it takes (the sequence).



Label words: Algorithm · Input · Output · Sensor · Sequence · Loop

Steps:

1. Step 1: Draw your robot in the space below. Make sure to include a 'Sensor' that helps the robot detect obstacles. Label it.
2. Step 2: Write one 'Input' command for your robot (e.g., 'If the sensor sees a wall, then...').
3. Step 3: What is the 'Output' of your robot after it receives the input? (What action does it take?)
4. Step 4: Explain why it is important for a robot to follow instructions in a specific 'Sequence'.
5. Step 5: If you wanted your robot to repeat a task, like cleaning a room, what is the name of the coding

command you would use?