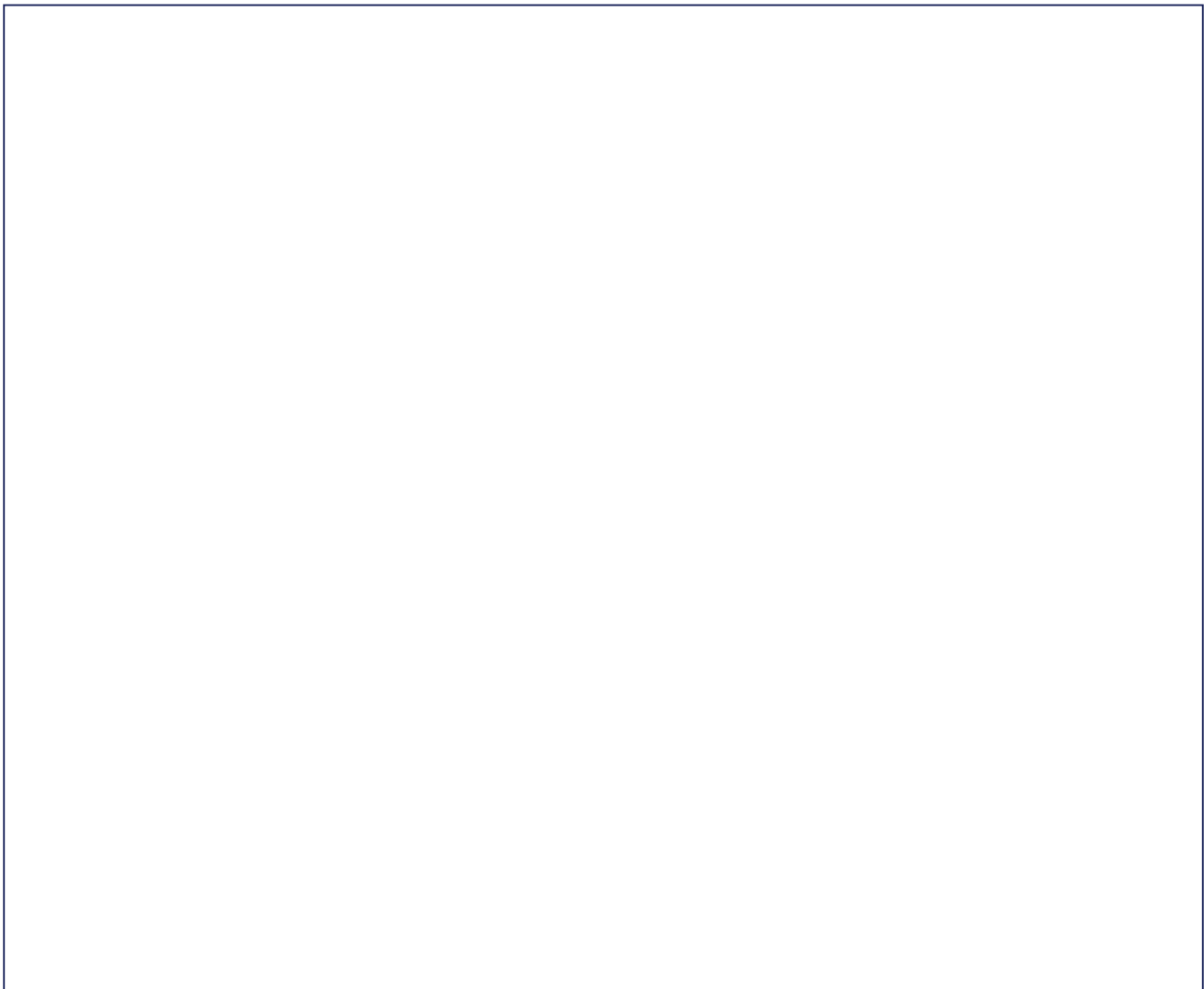


Kit's Computing Challenge: Designing a Robot

Learning objective: To understand how algorithms and sequences of instructions are used to control a robot.

Kit the fox is building a robot helper! Use the space below to design your own robot. Follow the steps to label your design, showing how you would program it to move and complete a simple task.

Draw: Draw a friendly robot in the centre of the page. Use a clear, technical drawing style with arrows pointing to different parts of the robot. Ensure there is enough empty space around the robot to write your labels from the word bank and your sequence of instructions.



Label words: Input · Output · Algorithm · Sequence · Sensor · Action · Debug

Steps:

1. Step 1: Draw your robot in the large box. Include one 'Sensor' that helps the robot see or feel things.
2. Step 2: Label the part of your robot that acts as the 'Output'. What does your robot do when it receives an instruction?
3. Step 3: Write a short 3-step 'Algorithm' (a sequence of instructions) for your robot to follow to move across a room.
4. Step 4: Imagine your robot bumps into a wall. What is the 'Debug' process you would use to fix the instruction?

5. Step 5: If your robot cost £15.50 to build and you bought a spare sensor for £4.25, what is the total cost?