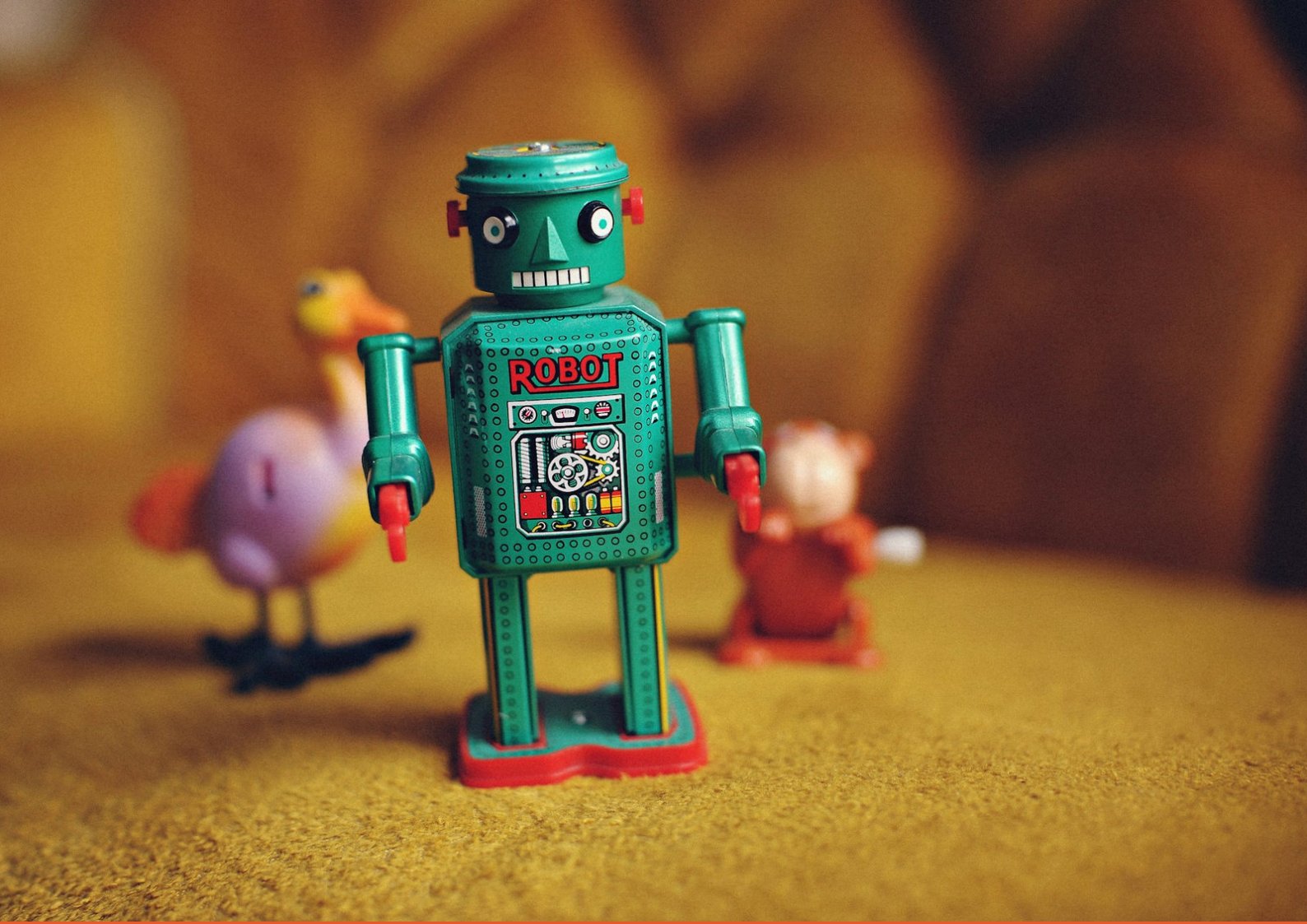




EduTrend Contents

EDUTECH · HANDS-ON ROBOTICS PROJECTS · PRIMARY

Robot Post Office

Program a floor robot to deliver letters to houses on a town mat

Ages 5–8

Level: Foundation

40 minutes

Pairs · up to 30

Activity 01

Inside: activity at a glance · step-by-step session plan · facilitator notes · 3 pupil worksheets · assessment checklist

ACTIVITY 01 · AT A GLANCE

Robot Post Office

Pairs receive a letter card with a house address on a town mat. They plan the route with arrow cards, program the floor robot and test the delivery. If the letter goes to the wrong house, they find and fix the wrong step. Stronger pairs try a round trip delivering two letters before returning to the post office.

Learning outcomes

By the end of the session pupils can:

- plan a route;
- program a sequence;
- test and fix mistakes;
- extend to longer routes.

KEY WORDS

route · sequence · forward · turn · deliver · fix

CURRICULUM LINKS

Geography: maps and directions.
Literacy: addresses and letters.
Maths: counting steps.

1**SENSE**

What can it detect?

2**THINK**

What should it decide?

3**ACT**

What should it do?

4**TEST**

Run it

5**DEBUG**

Find and fix

6**IMPROVE**

Make it better

Materials (per pair)

- Floor robot
- Town mat or taped grid with houses
- Letter cards
- Arrow cards
- Worksheets 1, 2 and 3

Before the session

- Make a town mat with numbered houses.
- Charge robots.
- Prepare letter cards.
- Print worksheets.

SAFETY

Keep mats clear of walkways. Adults handle charging.

ACTIVITY 01 · SESSION PLAN

Step by step

Pitch the task so most pairs succeed with one letter and stronger pairs can try two.

Time	What happens	Say or ask
0–5 min Hook	A letter needs delivering.	<i>“How will the robot get there?”</i>
5–15 min Plan	Arrow cards for route.	<i>“How many steps?”</i>
15–25 min Deliver	Program and test.	<i>“Did it reach the house?”</i>
25–35 min Fix and extend	Fix; try two letters.	<i>“Which step was wrong?”</i>
35–40 min Share	Show deliveries.	<i>“What did you learn?”</i>

CHALLENGE CARD (print or copy onto the board)

Program a floor robot to deliver a letter to the right house, then try delivering two letters and returning to the post office.

ACTIVITY 01 · FACILITATOR NOTES

The project know-how in brief

A floor robot follows a stored sequence of moves. Each forward step moves one square and each turn rotates it on the spot, so routes can be planned on a grid.

Projects work best when most groups can reach a working version and stronger groups can extend it. A round trip adds more steps and more chances to debug.

Common ideas to listen for

- “Turning moves the robot forward.” It turns on the spot.
- “Left is always the same way.” It depends on direction.
- “Mistakes mean start again.” Fix the wrong step.

Adapting the activity

Support

Use houses on a straight line.

Stretch

Deliver three letters by the shortest route.

WORKSHEET 1

My route

Name: _____

Class: _____ Date: _____

Plan the delivery.

My route

Step	Arrow
1	
2	
3	
4	
5	
6	

WORKSHEET 2

Deliveries

Record each try.

Deliveries

Letter	House	Delivered?
1		
2		
3		

WORKSHEET 3

What I fixed

Describe a mistake.

The mistake and how I fixed it

FOR THE TEACHER

Assessment checklist

Use during the session. One sheet covers up to eight pupils; copy as needed.

Pupil	Plans a route	Programs a sequence	Fixes mistakes

Suggested codes: W = working towards · E = expected · G = greater depth

ABOUT THIS ACTIVITY

Robot Post Office is a sample activity from the EduTrend Contents Edutech Hands-On Robotics Projects programme (primary, level: foundation). Every activity in the programme follows the same format: a practical challenge, a clear session plan, facilitator notes and ready-to-print worksheets, so that teachers, club leaders and parents can run it without extra preparation.

Full 15-, 20- and 32-week programmes are available from EduStore at edutrend.org.

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