

Floor robot: fix the bug



Lesson at a glance

Open with the floor robot, taped mat and teddy in view and ask what if the robot goes the wrong way. Model one clear miss, name the wrong arrow as the bug, fix it and try again. Drive one shared fix on the IWB path interactive, matching board arrows to floor facing, then rotate short group bursts: lay three arrow cards, press go, spot the bug, change one step and retry. Close with one group telling the bug they found and how they fixed it.

Learning objectives

- Spot a wrong move when the floor robot misses the target
- Change the wrong step and try again so the robot reaches the target

Before the bell – prep

Tape a simple 3-by-3 floor grid and mark L/R on the mat edges before the bell. Place one target picture and set out arrow cards plus the floor robot. Clear bags and feet from the lane. No robot: a child acts as robot and follows big arrow cards on the floor.

Materials

Item	Qty	Per	Source	Low-cost substitute
Bee-Bot or similar floor robot	1	group	school kit	a child acts as the robot and follows big arrow cards across a taped floor grid
taped floor mat with picture squares	1	group	classroom	masking-tape grid on the hall floor or carpet squares laid in a grid
big arrow cards (forward, turn left, turn right)	1	group	provided printable	draw large arrows on scrap card or paper plates
target picture cards (teddy, star or similar)	2	group	provided printable	a sticky note with a simple drawing, or a small classroom toy

Safety watch-point

Robots stay on the floor only. Keep the lane clear of bags and feet; children stand clear whenever the robot is moving.

Teaching moves

- **Watch me find the bug:** Think aloud a short sequence with one visible bug (prefer an extra or missing forward). When it misses, hold the wrong arrow card beside the robot and name it the bug — not an insect. Change that one arrow, press go again, and celebrate the reach. Fold in: Was that step right? Which arrow would you change?
- **Re-plan the route:** On the IWB interactive, build a short wrong path yourself so the first run clearly misses. Before run, stand by the real robot and link each board arrow to floor facing and the L/R markers. Children call which command to change; you drag, press run once, celebrate the fix, then move straight to the mats.
- **Send, spot, fix, try again:** Run short rotations: one small group on the mat (card layer, button presser, watchers) for about two minutes while others sit on the carpet edge. Keep sequences to three steps and one bug. After a miss, ask watchers which card to change; change only that card and retry. Celebrate the fix, not a perfect first try.
- **How did we help the robot?:** Carpet talk for two to three minutes. One group uses the stems: The bug was... We changed... Then the robot... Revoice a second fix you saw. Add one line only: that is the same job robot makers do.

What it should show

Success looks like a child pointing to the wrong arrow card, the group changing that one step, and the robot getting closer or reaching the teddy. Celebrate the fix cycle, not a perfect first try. If a group only restarts from scratch or blames the robot, pause and re-point to the cards: the bug is in our steps.

Misconceptions & interventions

- **Children say the robot is naughty or broken when it misses the teddy.** — Point to the arrow cards, not the robot: it did exactly the steps we gave it. Hold up the wrong card — that is the bug, and we can fix it.
- **Children look for a creepy-crawly when they hear the word bug.** — Hold the wrong arrow card beside the robot and say clearly: not an insect — a bug means a wrong step in our arrows. Then swap that card and try again.

Differentiation

Emerging	Developing	Proficient
• Keep the bug as one extra forward so spotting does not hinge on left/right; pair the child at the teacher mat to point to the wrong card while you change it.	• After one successful fix, ask: What will happen if we try again? and let the group press the fixed steps once more as watchers check the path.	• Invite a watcher to name which single card to change and predict the new path before the group presses go.



Cross-curricular hook

Link to Maths spatial language — forward, left and right — using the L/R markers on the mat as children name each step.