10 · Project sheet · Robot Says with Ayo

Term 1 build · Nursery 1 · Term 1 · Week 11 · Mini-project

1. At a glance

Time	40 minutes (or two 20-minute sessions)
Group size	Teams of 3: card-layer, robot, checker
Learning goal	I can program cut-out Ayo with three picture cards and fix a wrong one.
Coding idea	Program = cards in order. Run it, test it, fix it, share it.
Week link	https://rhinoxscientifica.com/q/n1-t1-w11

2. Materials needed

Item	Per	Low-cost swap
Cut-out Ayo	team	A toy or a box with a face drawn on it
Straight taped path (3–4 boxes)	team	Paper sheets in a row
Box target + sign (school gate or market stall)	team	A chair or bag as the target
Command cards: forward, stop, walk, wave, ↻	team	Hand-drawn cards
Build card + picture build checklist	team	The teacher reads the steps aloud
Phone or tablet for photos	teacher	Draw the program on paper
Step Star stickers	child	Washable marker star on the hand

3. Safety and care

- Box targets are light and empty.
- No climbing on boxes.
- An adult cuts any cardboard before class.
- Teams spread out on separate paths.

4. Before the lesson

1. Make cut-out Ayos and tape the paths.
2. Print the build card, checklists and target signs (Printables).
3. Set up Station 1 for the station check (Guide 05).
4. Read the lesson spec the evening before and lay out the cards.

5. Step-by-step guide

Step	Teacher says	Children do
1	“Stand Ayo at the start. Put your target at the end.”	Build the path and target
2	“Card-layer, lay 3 cards: first, next, last.”	Lay the program

Step	Teacher says	Children do
3	“Act it as friend-robots, then push Ayo one step per card.”	Run and test
4	“Did Ayo reach the target? If not, fix a card.”	Debug
5	“Partner team, swap two cards! Can they fix it?”	Find and swap back two cards
6	“Present: Ayo goes… first, next, last!”	Present and run for the class

6. Explore it

Question	Can our program get Ayo to the target every time?
Predict	“Will Ayo reach the market with your cards?” Thumbs up or down.
Try	Run the program three times: once as written, once after a partner swaps two cards, once after fixing.
Observe	“What happened when two cards were swapped?”
Explain	A program works when the cards are in the right order. A swap breaks it; fixing the order makes it work again.

7. Talk about it

1a. What is your Ayo program?

1b. Where does Ayo go?

1c. What was your job in the team?

2a. What happened when two cards were swapped?

2b. How did you fix it?

2c. What would you add next time?

8. Support and stretch

Support	A 2-box path with 3 cards; the teacher lays the first card.
Stretch (optional)	4 cards, a ↻ card, or a second target. Never assessed; celebrated at the Week 13 showcase.

9. How we check

Picture build checklist (not marked) + observation + photo.

Look for	Secure	With prompts	Not yet
Orders the 3-card program	☐	☐	☐
Acts and runs it with Ayo	☐	☐	☐
Checks if Ayo reached the target	☐	☐	☐
Fixes two swapped cards	☐	☐	☐

10. Take-home and parent note

> **Dear parent or carer**
> Today your child's team **programmed a cut-out Ayo** to reach a target, tested it and fixed it.
> At home: ask "What was your Ayo program?" and let your child program you with 3 steps to a toy.

11. Show and share

- Each team presents: "Ayo goes… first, next, last!" and runs the program.
- If you can, show another class.
- Put the team photo in the photo frame (Printables) for the Week 13 showcase.
- Every child who programmed Ayo and fixed a wrong card gets a **Step Star sticker**.



The Step Star is a weekly sticker, not a badge. The term badge "Step Thinker · Term 1" is awarded in Week 13.