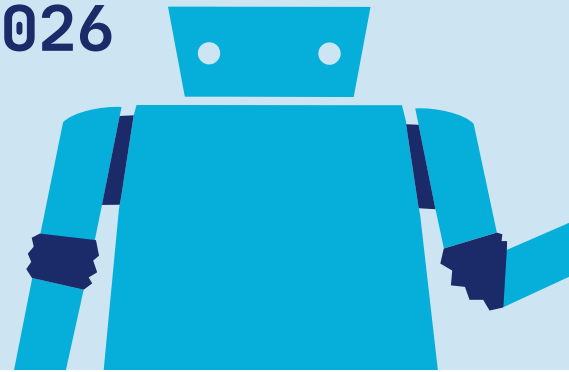


National Science Week 2026

Robot Responders

Guide Leader

Companion Guide



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Girl Guides Australia is excited to once again participate in National Science Week through CSIRO's Robot Responders National Science Experiment.

This companion guide has been developed specifically for Girl Guide Leaders and accompanies the [CSIRO Robot Responders Community Guide](#). It provides Girl Guide-specific programming ideas, age-appropriate facilitation suggestions and practical information to help you run the unplugged Robot Responders activities with your Unit.

Through these activities, Guides will investigate how engineers use robotics to solve real-world problems in environments that are too dirty, dangerous, or difficult for people to access.

How to participate in CSIRO Robot Responders National Science Week

1. Register Your Unit with CSIRO

Leaders are encouraged to register their Unit with CSIRO before participating.

Registration helps CSIRO understand participation in the National Science Experiment and may make your Unit eligible for promotional giveaways offered throughout National Science Week.

https://csiroevaluation.qualtrics.com/jfe/form/SV_3yfPWHNhQbmqOSq

2. Complete the Badge

Guides will have to complete at least one of the following options. We encourage Guides to complete more than one option.

Option A: CSIRO Robot Responders Mission Cards (Requires Printing)

A collaborative, group-based activity where guides work together to design a robot capable of completing a chosen mission.

Download and print pages 10-14 [CSIRO Robot Responders Community Guide](#).

Option B: CSIRO Robot Responders Card Game (Requires Printing)

A game-based activity where guides design their own robots. It's more structured and game-oriented, with an element of chance influencing the design process.

Download and print [CSIRO Robot Responders Card Game](#)

Option C: CSIRO Robot Responders Competition

Design an original robot that helps people, animals or the environment in a place that is dangerous or difficult for humans to access. Send in your most creative ideas and explain how your robot would complete its mission to CSIRO for your chance to win. Email your picture and responses to CSIROscienceexperiment@csiro.au.

Competition closes **23rd August 2026**.

Leaders should ensure appropriate permissions from Guides, parents and guardians have been obtained before submitting any Guides work.

3. Order Your National Science Week Robot Responders Badge

Commemorative National Science Week badges are available through Girl Guides Australia. Please order badges for your unit through this link.

<https://girlguidesaustralia.snapforms.com.au/form/csiro-robot-responders>

Please order badges by the **24th of August 2026**.

Programming Ideas

Guides aged 5–10 years

IMAGINE Learning Focus

- Guides are discovering that robots help solve problems.
- The emphasis should be on imagination, creativity and teamwork.

Suggested Unit Meeting

Introduction

Discuss:

- What is a robot?
- Have you ever seen one?
- What jobs could a robot do?
- Can robots help animals?
- Can robots help people?

Option A
CSIRO Robot
Responders Mission
Cards (Select one
Robot Responders
Mission)

Read the story
together. Work as a
whole Unit or small
groups.

Focus on:

- What problem
needs solving?
- What does our
robot need?

Option B
CSIRO Robot
Responders Card
Game (Use the Robot
Responders card game
cooperatively in
patrols)

- Remove the
optional budget
challenge.

Option C
CSIRO Robot
Responders
Competition

- Draw your robot.
- Build it using
recycled materials.

Focus on:

- What problem
needs solving?
- What does our
robot need?

Reflection "My robot
helps..."

Guides aged 10–14 years

DESIGN Learning Focus

- Guides begin thinking like engineers.
- Encourage them to investigate, test and improve.

Suggested Unit Meeting

Option A + B

- Mission Briefing as a unit. Patrols choose a mission.

Identify: the problem, the environment, hazards and success criteria.

Once completed the Mission Cards move onto the Robot Responders Card Game

- Play using standard rules.
- Introduce the optional budget challenge.

Option C

CSIRO Robot Responders Competition

Using recycled materials, Patrols need to build a robot model.

Encourage Guides to explain:

- Why did we choose these parts?
- What does our robot do that people cannot?
- What does our robot do?

Engineering Review

- Swap with another Patrol.

Discuss

- Does this robot solve the problem?
- Could anything be improved?
- Patrols then redesign one feature.

Reflection

- Engineers rarely get it right first time.
- What did your Patrol improve?

Optional Activity - Engineering Careers

Research different engineering / STEM careers with a focus on women in these careers and share what you have learnt. These possible careers could include:

- engineer
- marine scientist
- geologist
- environmental scientist
- robotics technician
- Programmer.

Guides aged 14–17 years

INNOVATE Learning Focus

- Guides explore innovation, ethics and future technologies.

Suggested Unit Meeting (Option A, B & C)

Mission Analysis – go through the Mission cards and select and complete the chosen mission

Discuss

- Who benefits?
- What are the risks?
- How could this fail?

Robot Responders Card game – Play using the full rules.

Include

- budget
- justification
- engineering decisions.

Reflection

- Would this robot work in real life?
- How could it be improved?

Robot Responders Competition

The future of Australia – Robots are becoming more prevalent in Australia in our everyday lives, but what about using robots to help us on a bigger scale, that helps millions of people.

Design a robot that helps with:

- flood recovery
- Natural disasters
- bushfires
- farming
- wildlife conservation
- Healthcare

Ethics Discussion

- Should robots replace people?
- Should AI make rescue decisions?
- Would you trust a robot surgeon?

Leader Checklist

Before your meeting:

- ☐ Register your Unit with CSIRO
- ☐ Browse the CSIRO Robot Responders resources
- ☐ Print the Mission Cards and/or Robot Responders Card Game
- ☐ Order National Science Week badges through this link
<https://girlguidesaustralia.snapforms.com.au/form/csiro-robot-responders>
- ☐ Choose the age-appropriate programming ideas
- ☐ Celebrate your Unit's participation in National Science Week