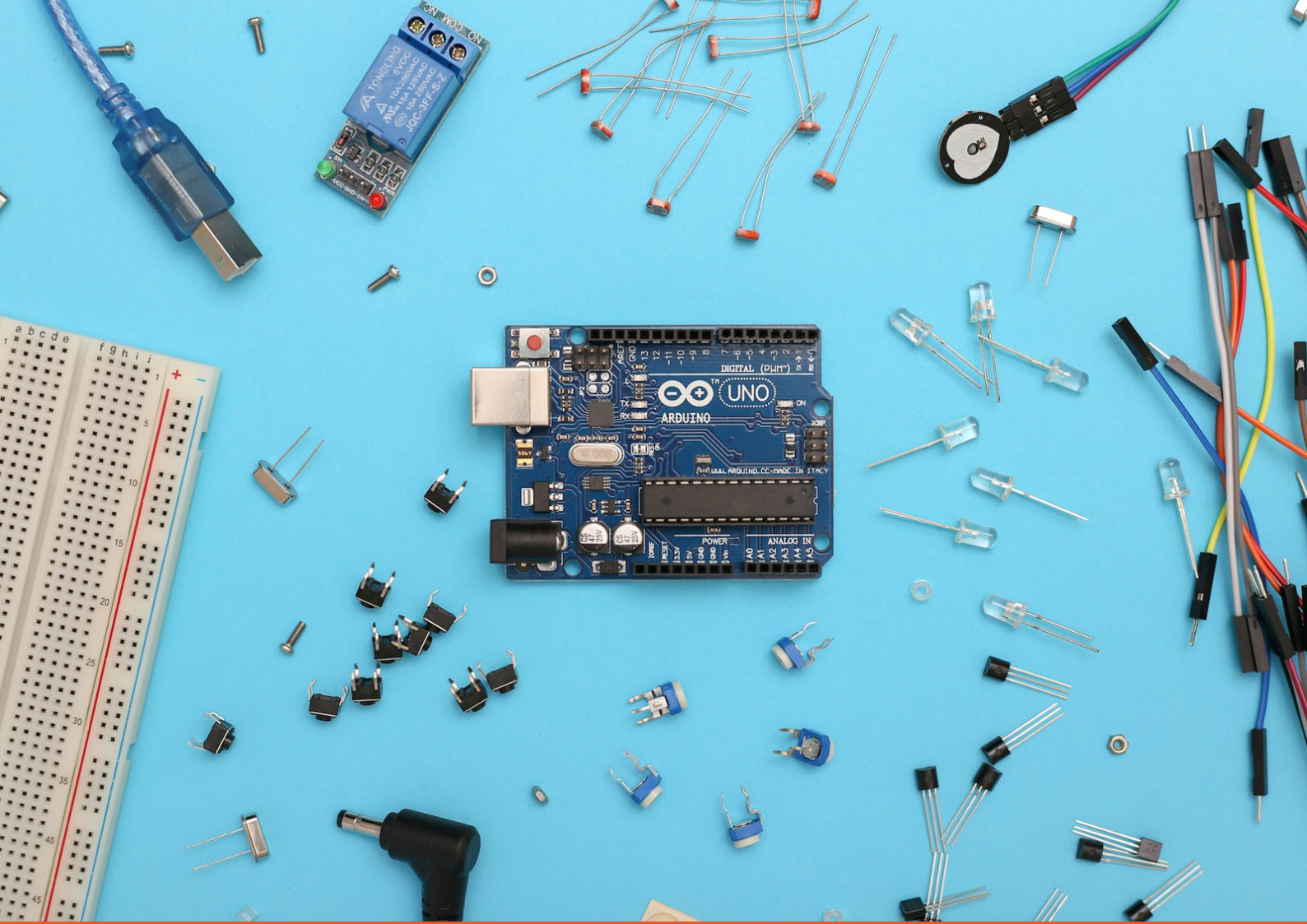




EduTrend Contents

EDUTECH · ROBOTICS RESOURCES FOR TEACHERS · PRIMARY

Explore the Kit

A structured first lesson with a robotics kit, parts checklist and care routines

Ages 8–11

Level: Developing

50 minutes

Groups of 3 · up to 30

Activity 02

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

ACTIVITY 02 · AT A GLANCE

Explore the Kit

Groups open a kit with a parts checklist inside the lid. They sort and name parts, then complete three short exploration tasks: make a motor turn, make a light or display show something, and read one sensor. They agree class care routines and finish by checking every part back in.

Learning outcomes

By the end of the session pupils can:

- name kit parts;
- use a parts checklist;
- complete simple exploration tasks;
- follow care routines.

KEY WORDS

kit · part · motor · sensor · checklist
· routine

CURRICULUM LINKS

D&T: components. PSHE: responsibility. Maths: counting and sorting.

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 group)

- Labelled robotics kits with checklists
- Devices with the kit software
- Task cards
- Worksheets 1, 2 and 3

Before the session

- Label kits and add checklists.
- Charge batteries on a rota.
- Print task cards.
- Print worksheets.

SAFETY

Keep small parts on trays. Report damaged cables. Adults handle battery charging.

ACTIVITY 02 · SESSION PLAN

Step by step

Missing pieces cause more lost time than technical problems; build the checking habit now.

Time	What happens	Say or ask
0–8 min Open	Sort parts with checklist.	<i>"Is everything here?"</i>
8–20 min Name	Match parts to names.	<i>"What does this part do?"</i>
20–40 min Explore	Three short tasks.	<i>"What happened?"</i>
40–45 min Routines	Agree care rules.	<i>"How will we keep kits complete?"</i>
45–50 min Check in	Checklist and pack away.	<i>"Anything missing?"</i>

CHALLENGE CARD (print or copy onto the board)

Explore a robotics kit through three tasks, name its parts and return it complete using the parts checklist.

ACTIVITY 02 · FACILITATOR NOTES

The teaching know-how in brief

A good first lesson lets pupils explore the kit with purpose. Short tasks with a motor, an output and a sensor show the sense–think–act pattern in action.

Labelled kits, checklists inside lids and a battery charging rota are simple routines that save a lot of lesson time.

Common ideas to listen for

- “Exploring means playing without aims.” Structured tasks help.
- “Parts will always be there.” Checklists keep kits complete.
- “Only the teacher looks after kits.” Everyone does.

Adapting the activity

Support

Provide pictures of parts.

Stretch

Combine a sensor and motor in one program.

WORKSHEET 1

Parts

Name: _____

Class: _____ Date: _____

Name and count.

Parts

Part	What it does	Count
1		
2		
3		
4		
5		

WORKSHEET 2

Tasks

Record results.

Tasks

Task	What we did	Result
Motor		
Display or light		
Sensor		

WORKSHEET 3

Care routines

Our kit rules.

How we will look after our kit

FOR THE TEACHER

Assessment checklist

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

Pupil	Names parts	Completes tasks	Follows routines

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

ABOUT THIS ACTIVITY

Explore the Kit is a sample activity from the EduTrend Contents Edutech Robotics Resources for Teachers programme (primary, level: developing). 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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