



EduTrend Contents

EDUTECH · ROBOTICS COMPETITIONS AND CHALLENGES · PRIMARY

Mini Mission Table

Plan, program and score a themed mission table

Ages 8–11

Level: Developing

60 minutes

Teams 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

Mini Mission Table

The class mission table has a theme, such as a recycling centre, and three missions of different values: push a “bin” to a zone (10 points), stop on a line (15 points) and knock a lever (20 points). Teams choose which missions to attempt in a 2-minute run, program, test and try three runs, then reflect on strategy.

Learning outcomes

By the end of the session pupils can:

- plan a mission strategy;
- program precise movements;
- test within time limits;
- reflect on strategy choices.

KEY WORDS

mission · strategy · points · run · precision · reflection

CURRICULUM LINKS

Maths: points and totals.
Geography: recycling theme.
PSHE: teamwork.

1	2	3	4	5	6
SENSE	THINK	ACT	TEST	DEBUG	IMPROVE
What can it detect?	What should it decide?	What should it do?	Run it	Find and fix	Make it better

Materials (per team)

- Robot kits
- Mission table (taped zones, cups as bins, card lever)
- Timer
- Worksheets 1, 2 and 3

Before the session

- Build a simple mission table.
- Prepare score sheets.
- Check robots.
- Print worksheets.

SAFETY

Only the runner touches the table during a run.
Keep hands clear of moving robots.

ACTIVITY 02 · SESSION PLAN

Step by step

Some teams chase high-point missions and score nothing; discuss the trade-off.

Time	What happens	Say or ask
0–8 min Brief	Explain missions and points.	<i>“Which will you try?”</i>
8–15 min Strategy	Plan mission order.	<i>“Is it realistic in 2 minutes?”</i>
15–40 min Program	Program and practise.	<i>“Is it reliable?”</i>
40–52 min Runs	Three timed runs.	<i>“What changed between runs?”</i>
52–60 min Reflect	Strategy review.	<i>“Would you change your plan?”</i>

CHALLENGE CARD (print or copy onto the board)

Choose a mission strategy, program your robot and score as many points as possible in three 2-minute runs, then reflect on your choices.

ACTIVITY 02 · FACILITATOR NOTES

The competition know-how in brief

Competition tables present several missions worth different points. Teams must balance ambition with reliability, since a simple mission done every time can beat a hard one that often fails.

Reliable robots start from the same position each time and use sensors or careful measurement. Small changes between runs, tested one at a time, improve scores.

Common ideas to listen for

- “Harder missions always score more overall.” Reliability matters.
- “Change everything after a bad run.” Change one thing.
- “Luck decides.” Preparation decides most results.

Adapting the activity

Support

Provide programs for one mission.

Stretch

Combine two missions in one program.

WORKSHEET 1

Strategy

Name: _____

Class: _____ Date: _____

Plan missions.

Strategy

Mission	Points	Try it?	Why
Bin push			
Line stop			
Lever			

WORKSHEET 2

Runs

Record scores.

Runs

Run	Missions done	Points	Change made
1			
2			
3			

WORKSHEET 3

Reflection

Review strategy.

What we would change and why

FOR THE TEACHER

Assessment checklist

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

Pupil	Plans strategy	Programs precisely	Reflects on choices

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

ABOUT THIS ACTIVITY

Mini Mission Table is a sample activity from the EduTrend Contents Edutech Robotics Competitions and Challenges 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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