

Go Guide Straw Rockets



Eye protection is required for this activity.

LIFT OFF!

eacherGee

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Supplies

Straw Rocket Launcher Parts

These are the parts you need to Straw Rocket Launcher.

/ Name	/ Qty	/ Picture
Hole Plate SKU 1821-32	1	
Blocks 38 cm (15 in) SKU 1821-34	2	
Cylinder 14 ml SKU 1821-53	1	
Tubing 38 cm (24 in) SKU 1821-51	1	
Straws 10 cm (4 in)	8	
Dowel 15 cm (6 in) SKU 1821-20	1	0
Wire 19 cm (7.5 in) SKU 1823-73	1	

Materials You Supply

- Safety Glasses
- Tape
- Scissors (for cutting fins)
- Recycling Bin Materials (what can you use to make fins)



Using a Maker Cart or Bulk Components?

You'll need to supply straws and cut your own dowels & wire.





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Finish the Launcher



Congratulations! Your launcher is done. Next, you'll make your rockets!

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Get Launching!



Go Guide



Make & Test Rockets

You can design your rocket to be so much better! Here are some tips and ideas to help you design your own unique rocket!

Straw Rockets



Nose Cone

The nose cone needs to pierce through the air without being unsafe (can't be hard & pointy).

Fins

Fins help the rocket go straight and glide through the air.

Try different **sizes**, **shapes**, and **numbers** of **fins**.

Big fins, like these, look cool but can make the rocket wobbly.

Target Challenge

The most accurate rocket wins!

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Criteria:

(what your design must do)

- The launcher that hits closest to the center wins!
- Each team gets three launches only the best launch counts.
- Each launcher must launch from the same position towards the same target.

Constraints:

(rules and limits for your design)

- You cannot launch the same rocket twice in a row.
- Rockets cannot have dangerous nose cones (tips).

Additional Challenges

Use the constraints above for these challenges.

Moving Target Challenge

Complete 3 rounds, moving the target each time. Measure each shot's distance from the bullseye, and add them at the end. The launcher with the least total distance wins!

Distance Challenge



The rocket that travels the greatest distance wins!







