

SCIENCE QTSAV[®]
Science is awesome

WHEEL-O-SCOPE



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Overview

The behaviour or the way in which a material acts is called its property. Every item around us has different properties.

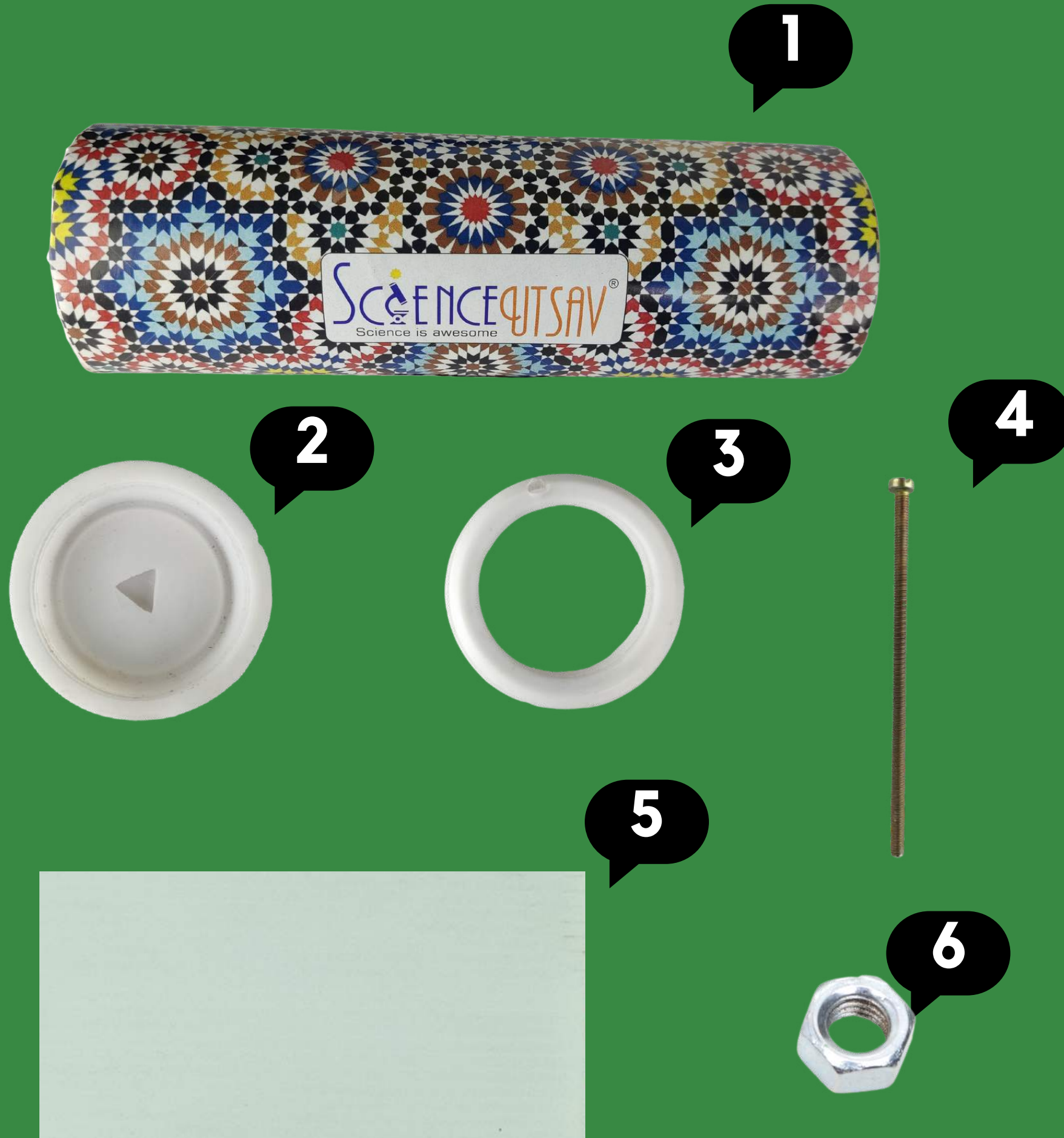


Engineering challenge

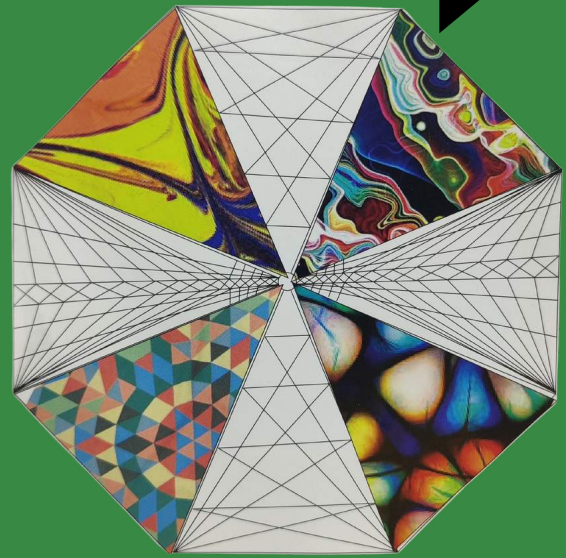
One loves to see the colourful patterns forming inside the hollow tube. Let's build a **Wheel-o-scope** and witness the formation of beautiful patterns through the mirrors.



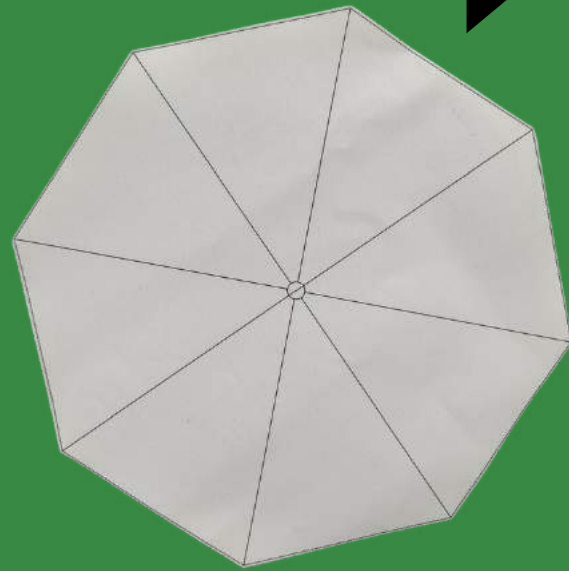
Materials Required



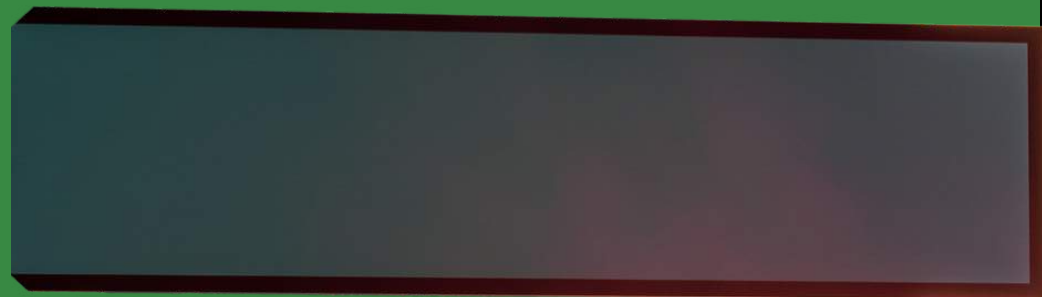
Sr.No	Name	Qty
1	Cardboard tube	1
2	Small hole cap	1
3	Large hole cap	1
4	Bolt	1
5	Corrugated sheet	2
6	Nut	2



7



8



9



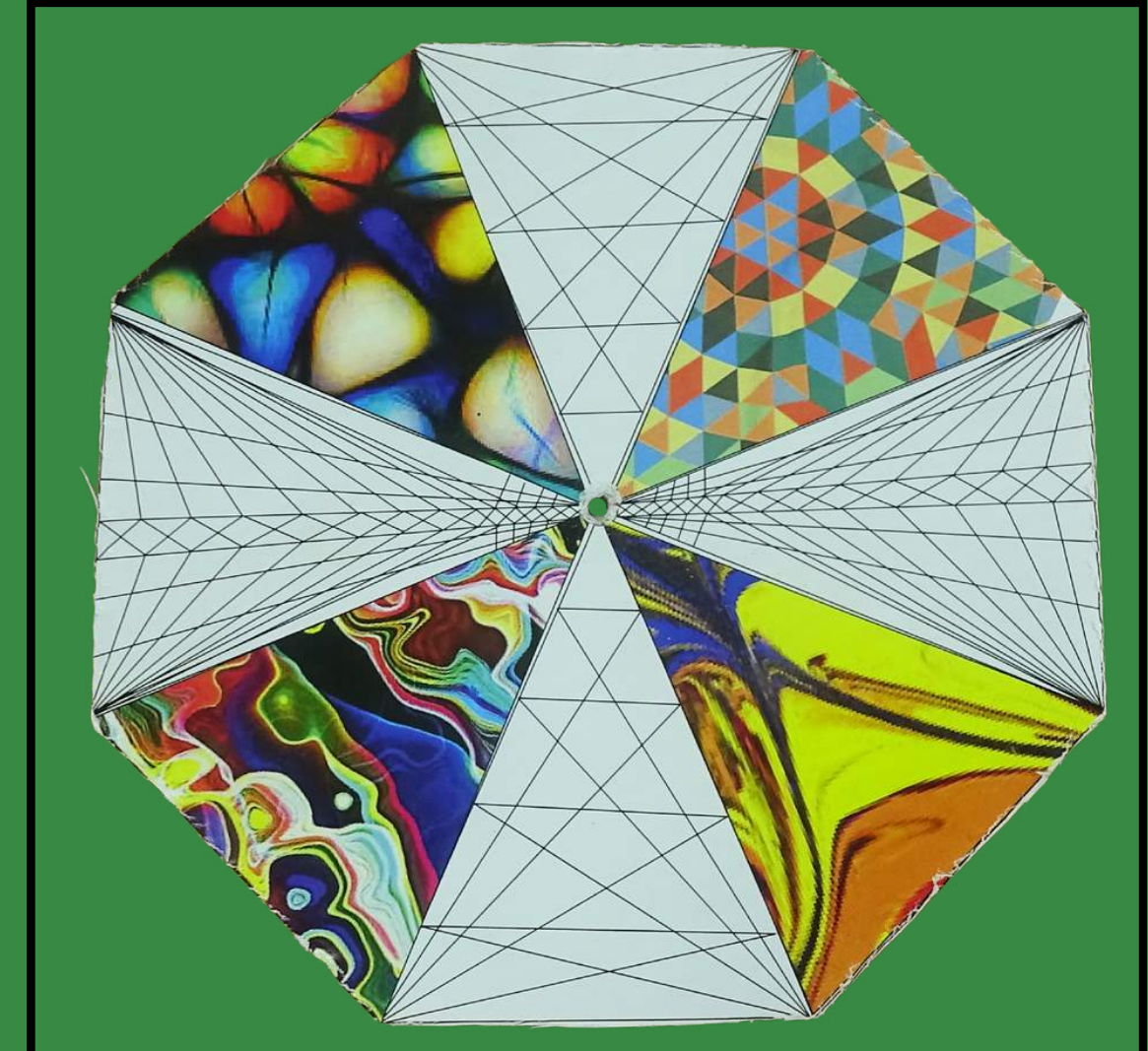
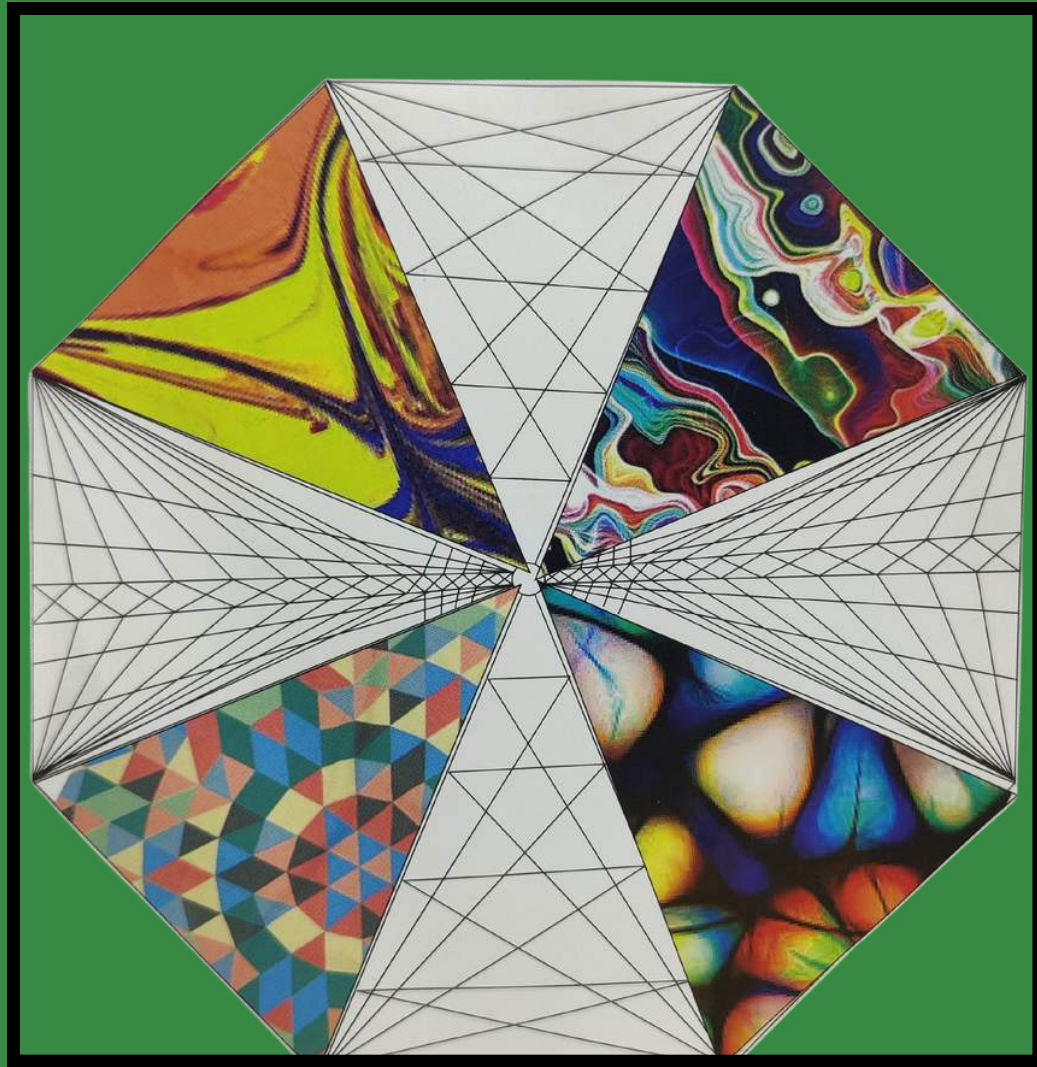
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Materials Required

Sr.No	Name	Qty
7	Sticker template	1
8	Empty template	1
9	Mirror	3
10	Cello tape ring	1

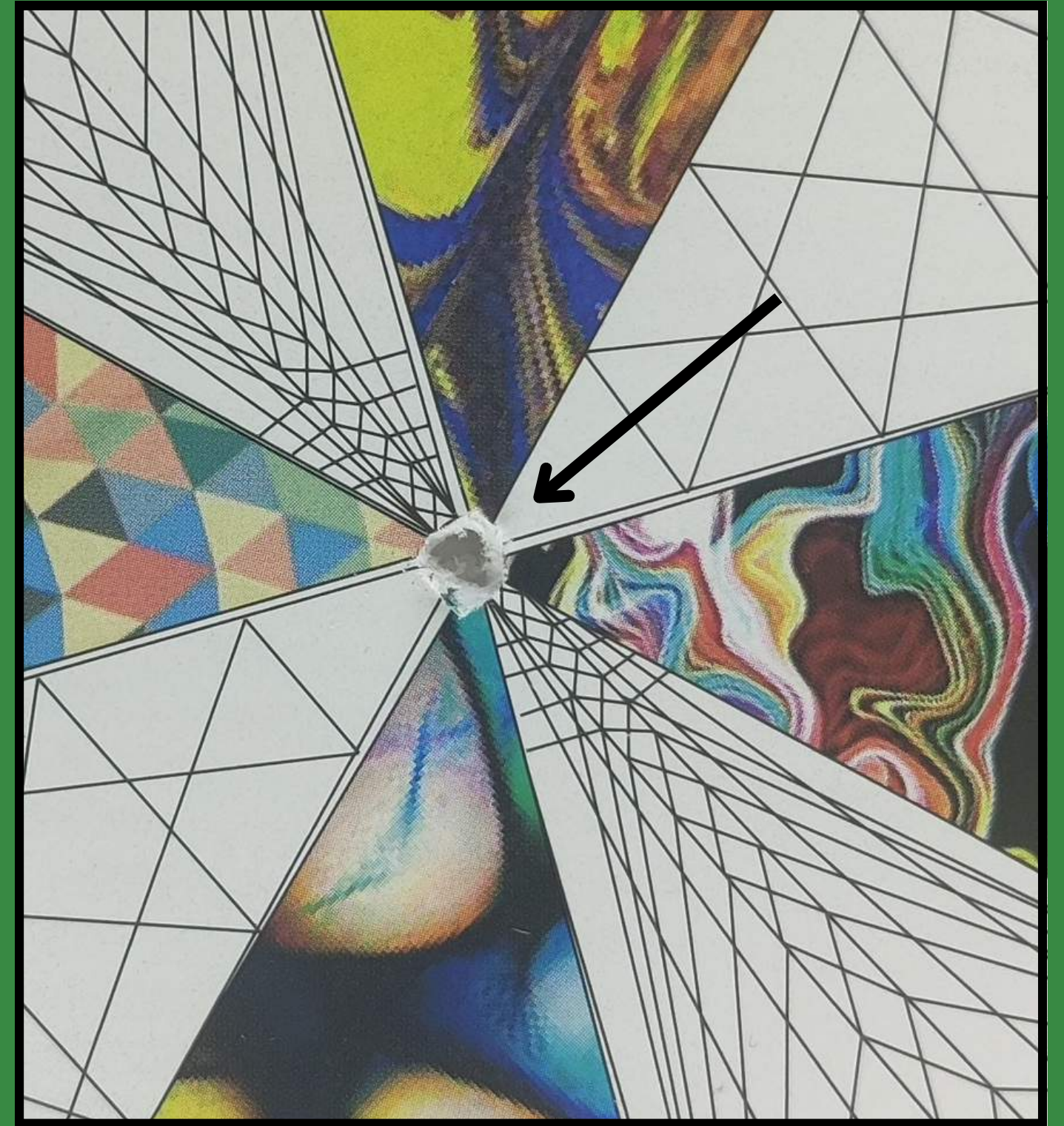
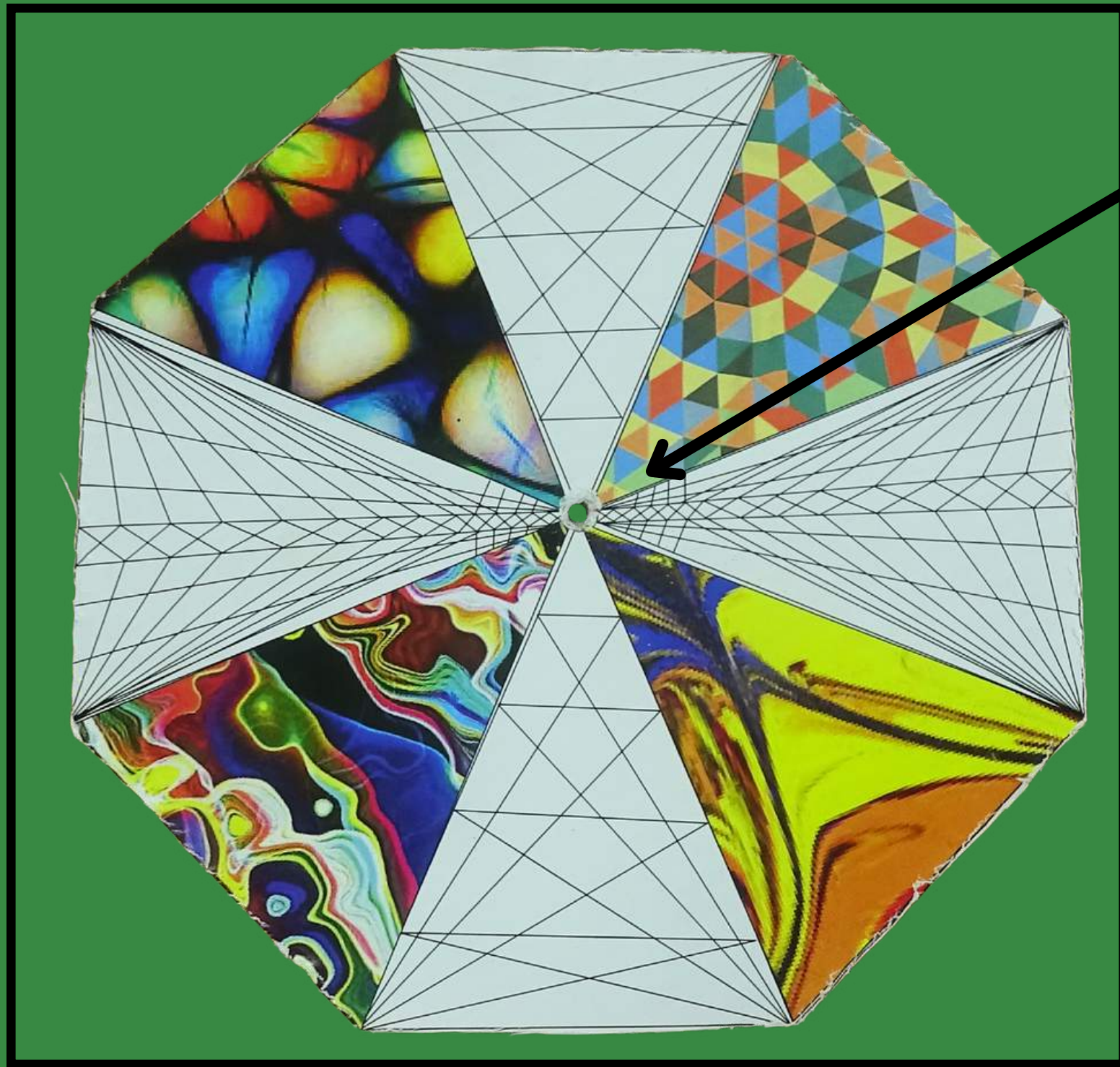
Procedure

Paste the sticker on the corrugated sheet and cut it according to its shape

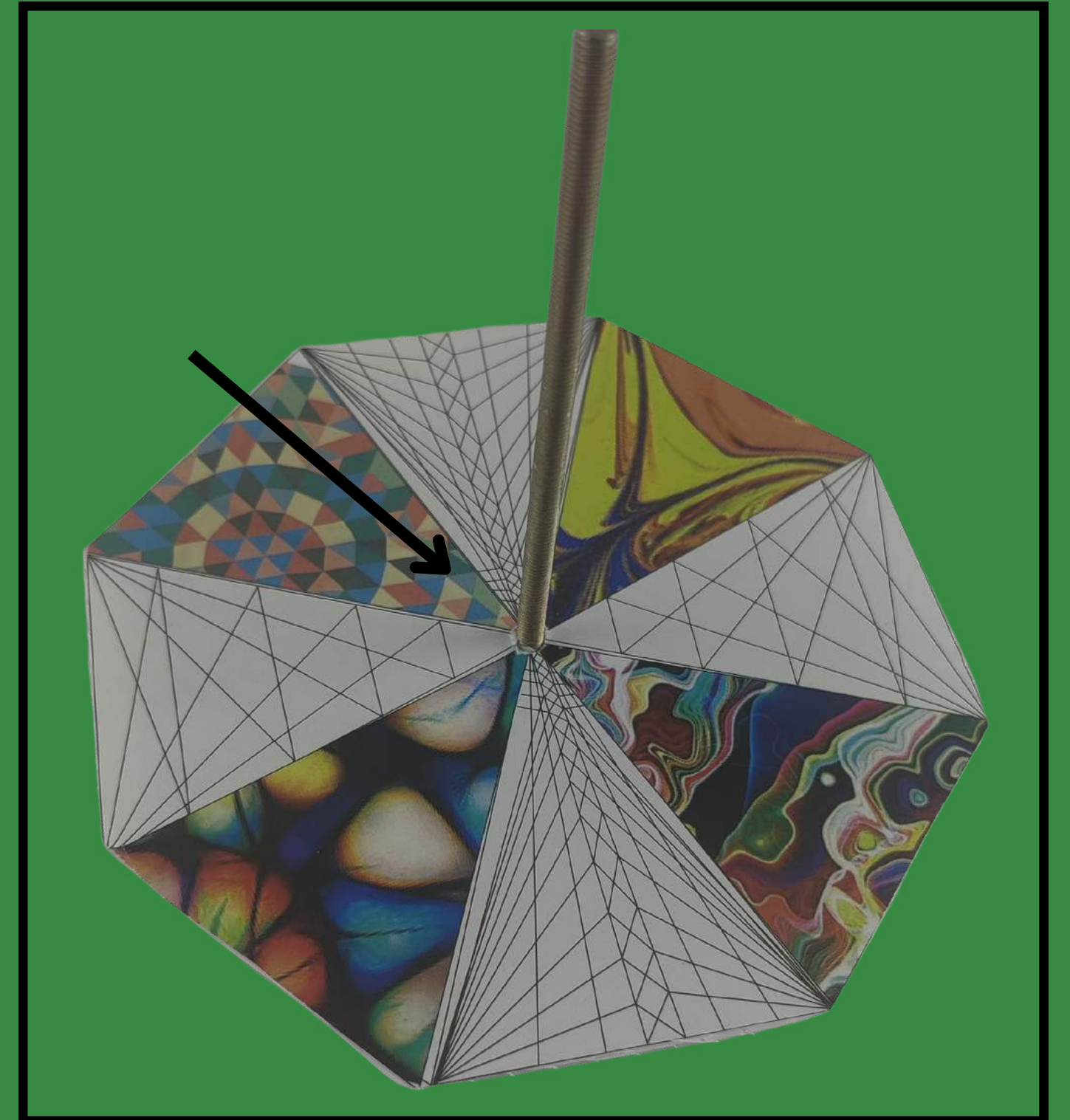
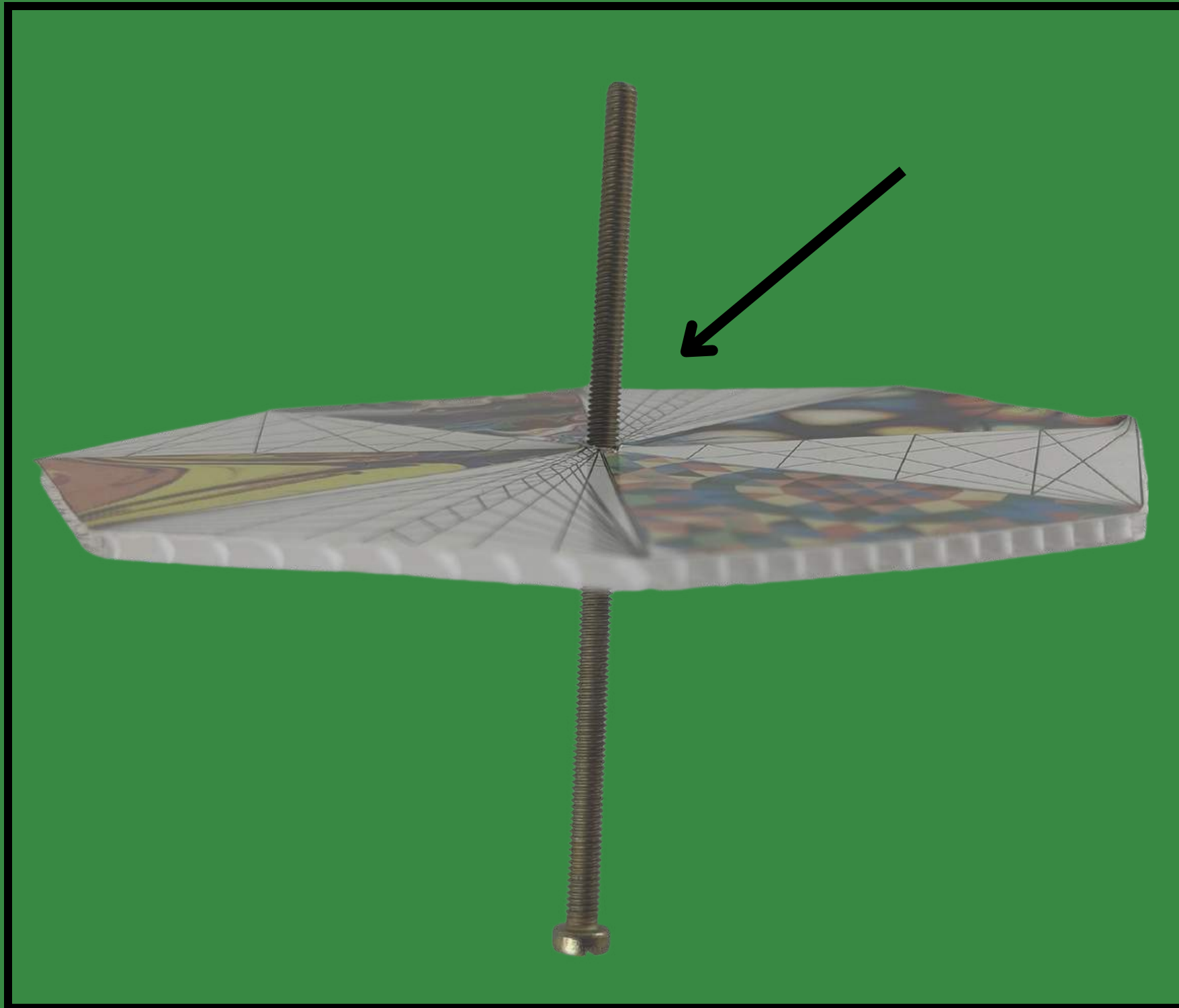


Corrugated sheet

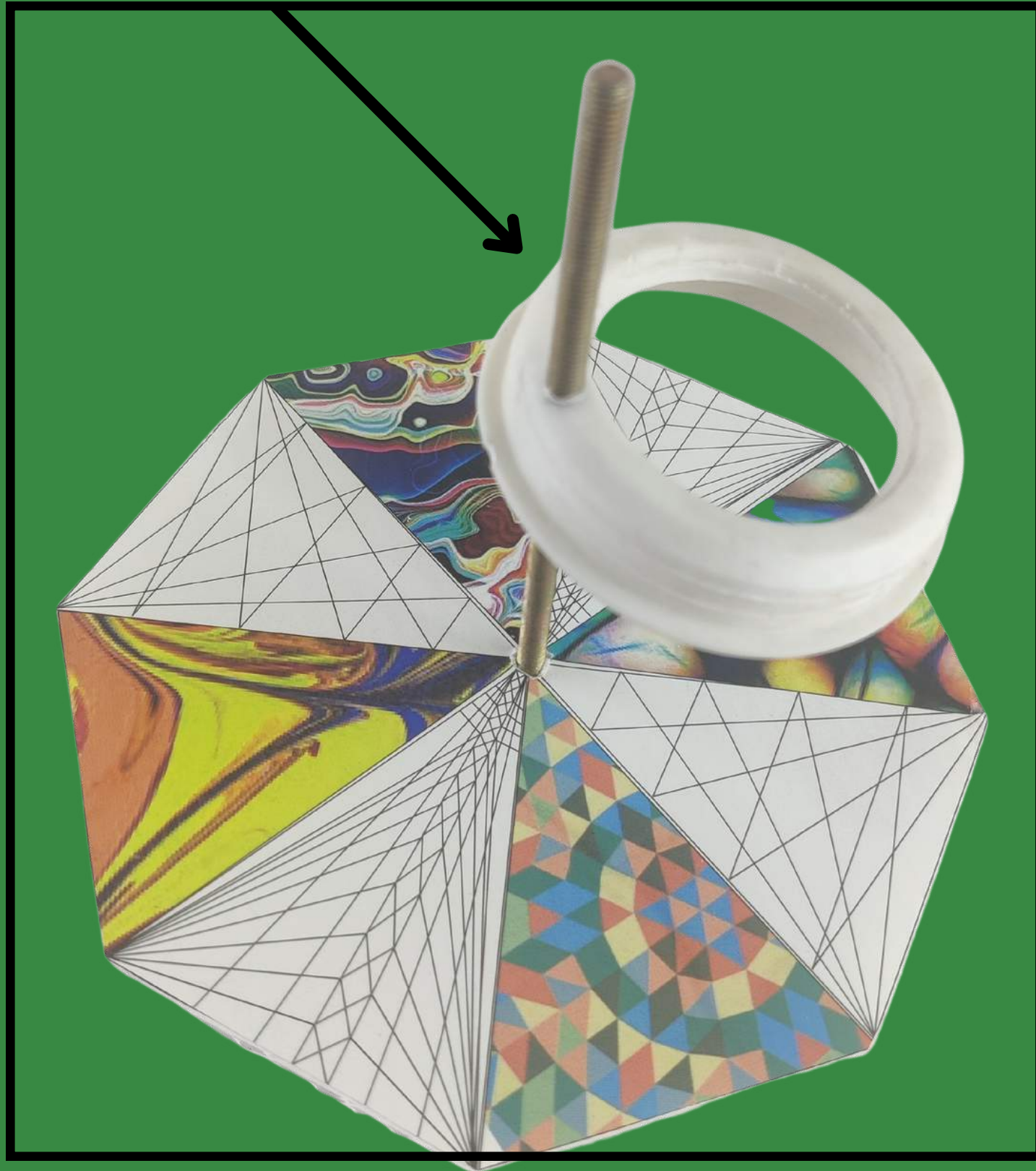
Make a hole in the centre of the sticker as shown



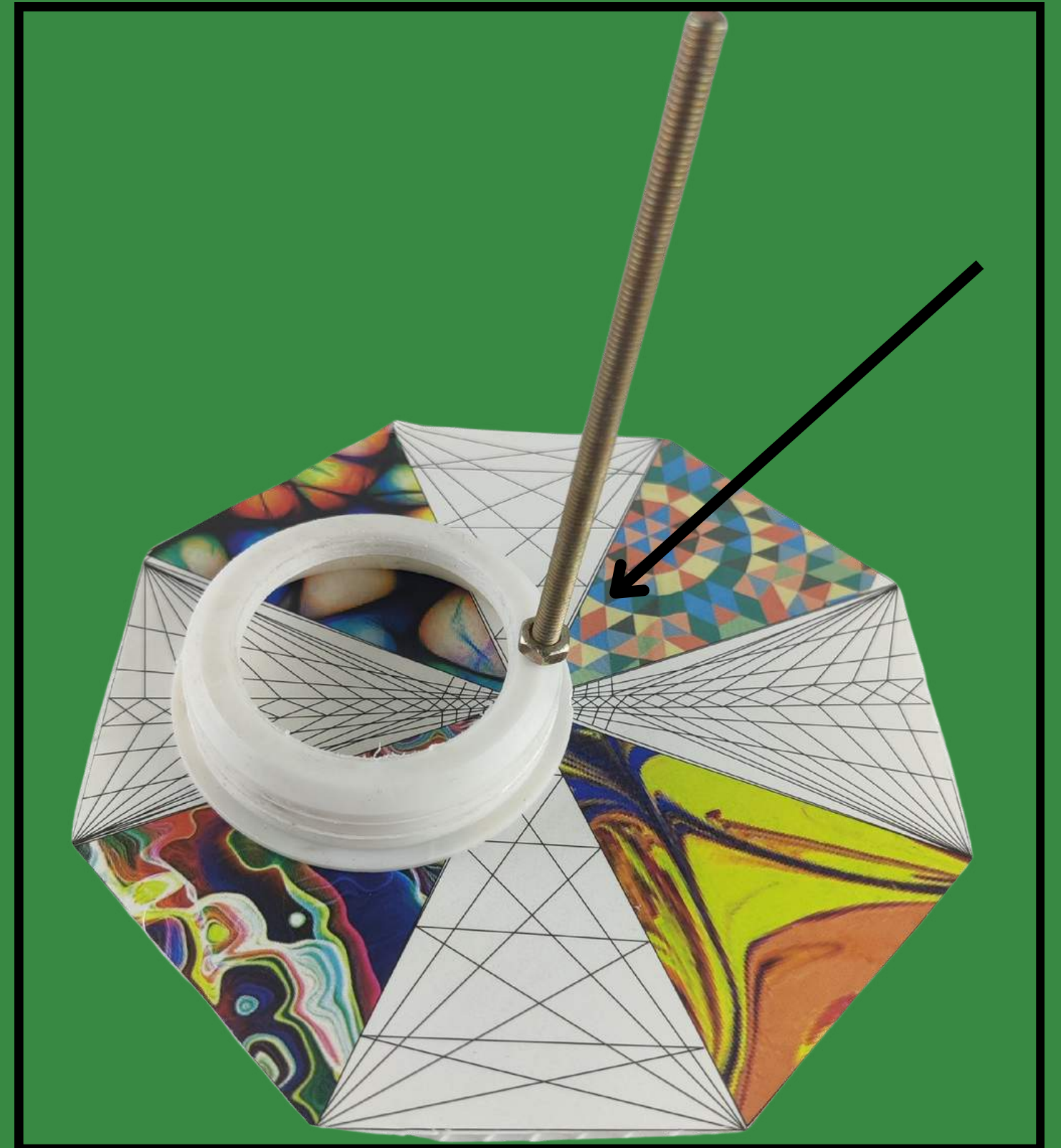
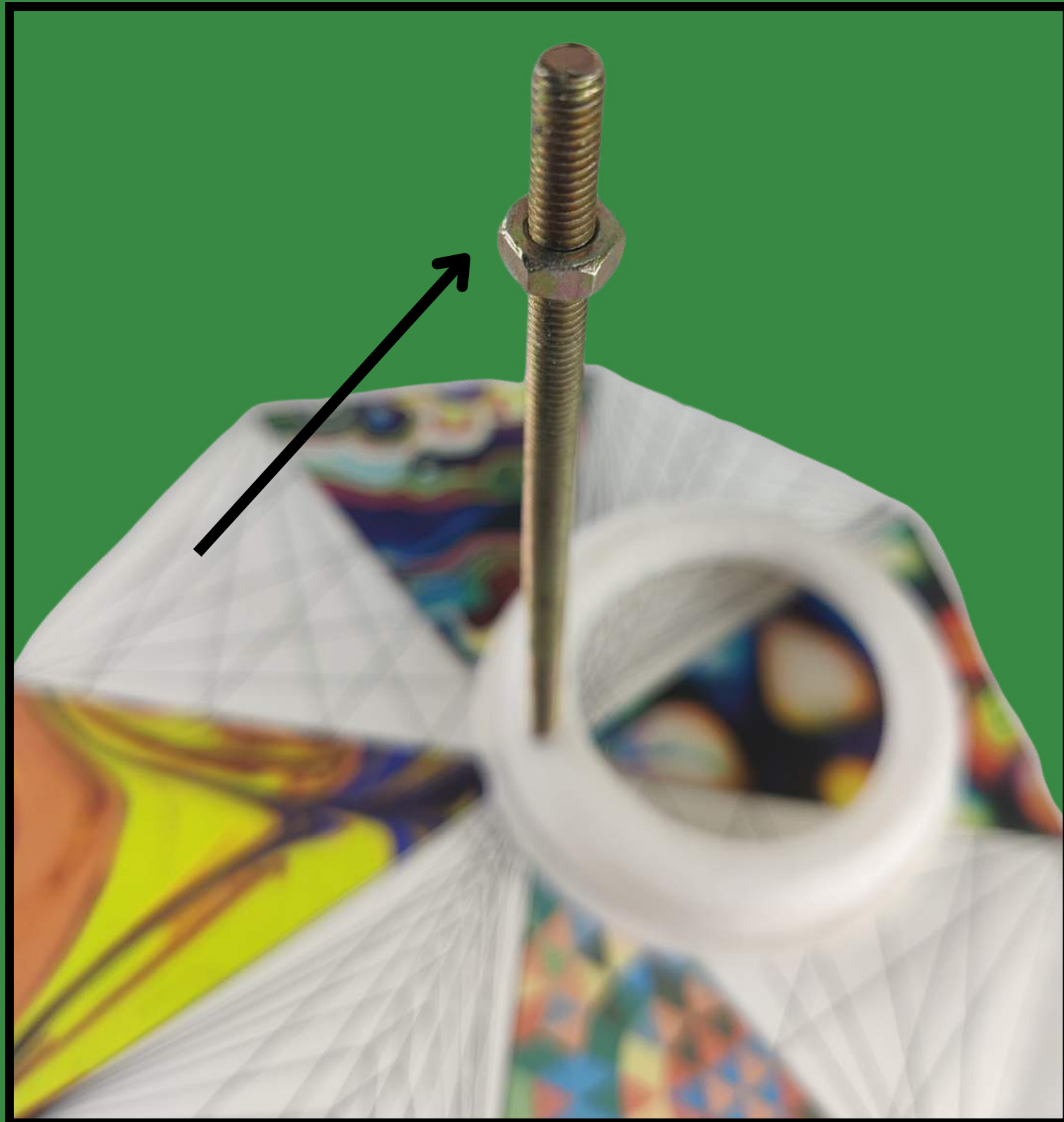
Insert the given bolt into the hole



Insert the cap with a hole into the bolt



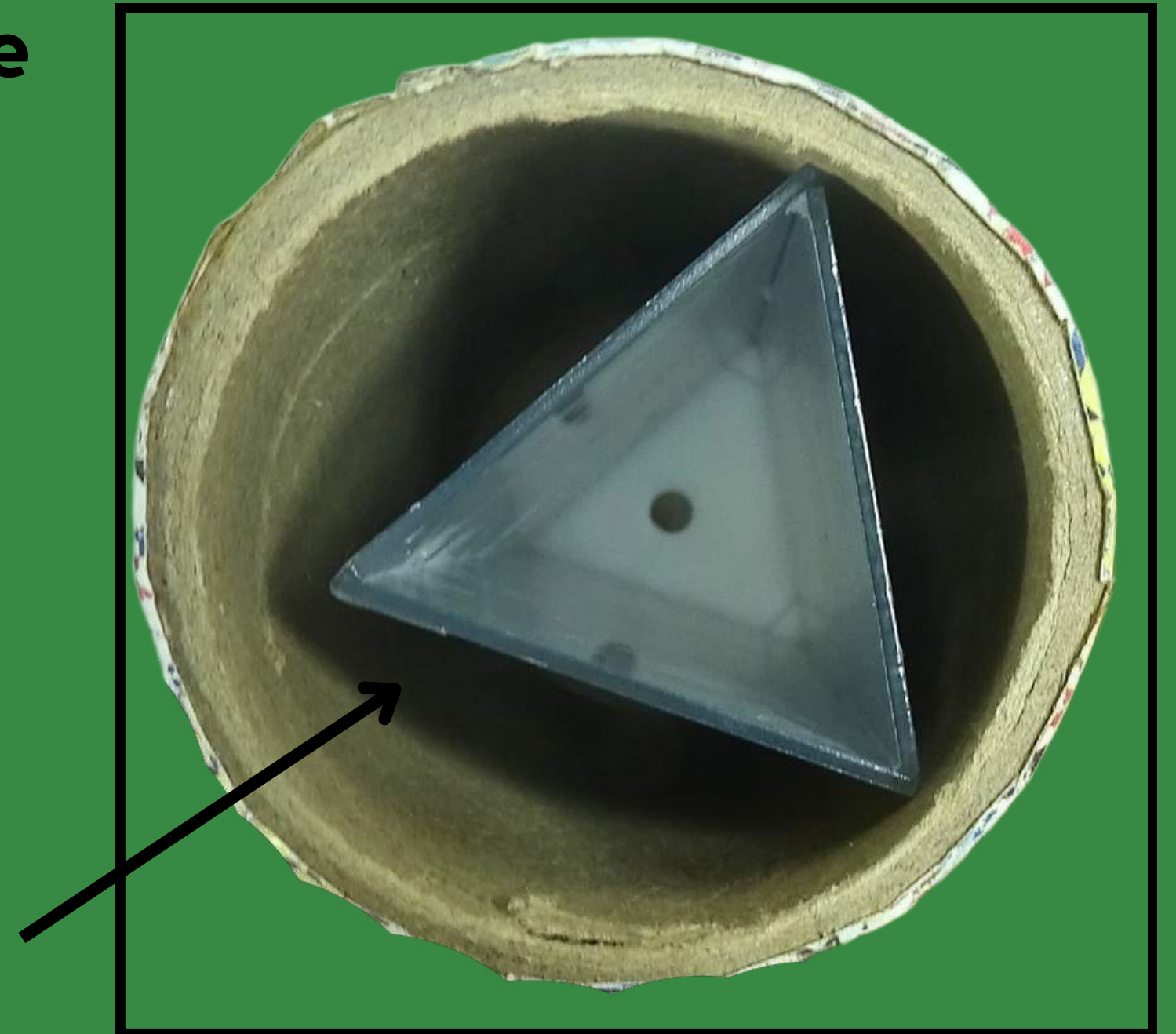
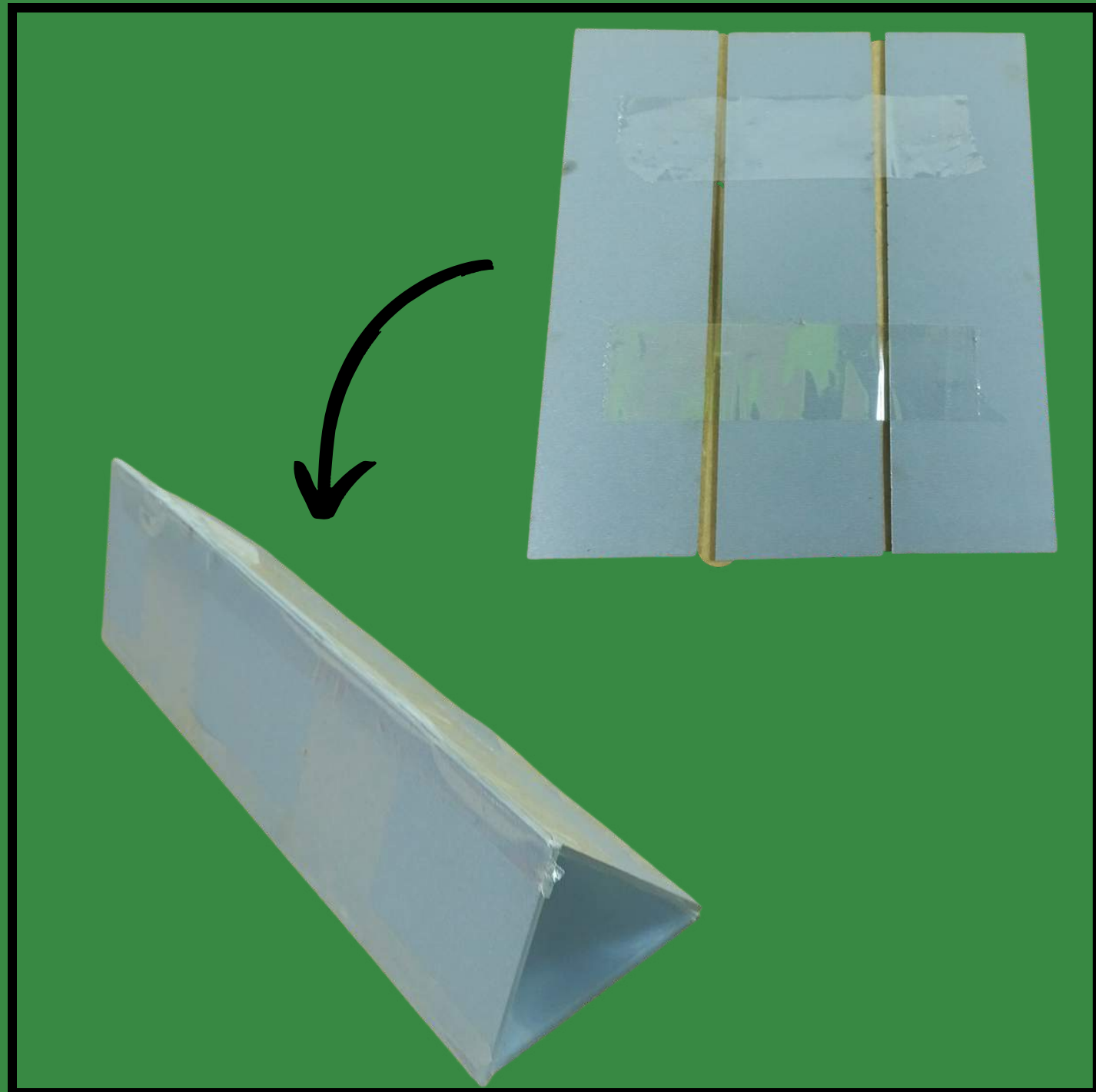
Insert nut to the bolt



Insert the cardboard tube and fix it into the cap



Stick the mirrors with the help of cello tape and fold them into triangular shape



Insert the mirror inside the tube as shown

Insert the cap with a triangle hole on top of the cardboard tube



How to play with the toy.

Hold the Wheeloscope in your hand, near the eye. Look into the hole given at the end cap. Observe the image formation on the mirrors by rotating the disc.





FAQ'S

Why does the Wheel-o-scope contain 3 mirrors?

- As Mirrors are arranged inside the tube like a prism which facilitates multiple reflections.

Why do we fix rotating discs instead of End caps?

- Transparent end cap where colourful objects are placed to create patterns. So, the Wheel-o-scope has a rotating disc instead of end caps.