

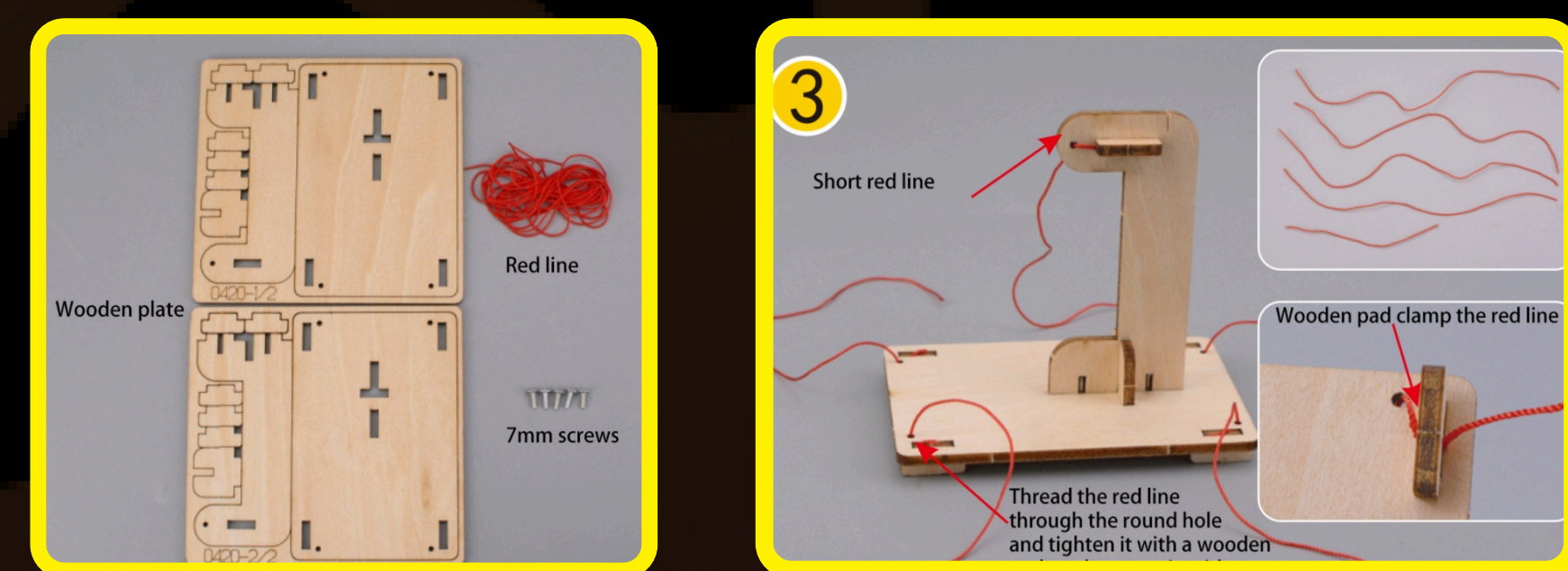
DIY TENSEGRITY STRUCTURE



Imagine building a tower that stands up all by itself without any glue or nails! This cool toy is called a tensegrity structure. It's made of sticks and strings that work together to keep it standing tall. You'll have fun putting it together and watching it balance. It's like a magic trick!

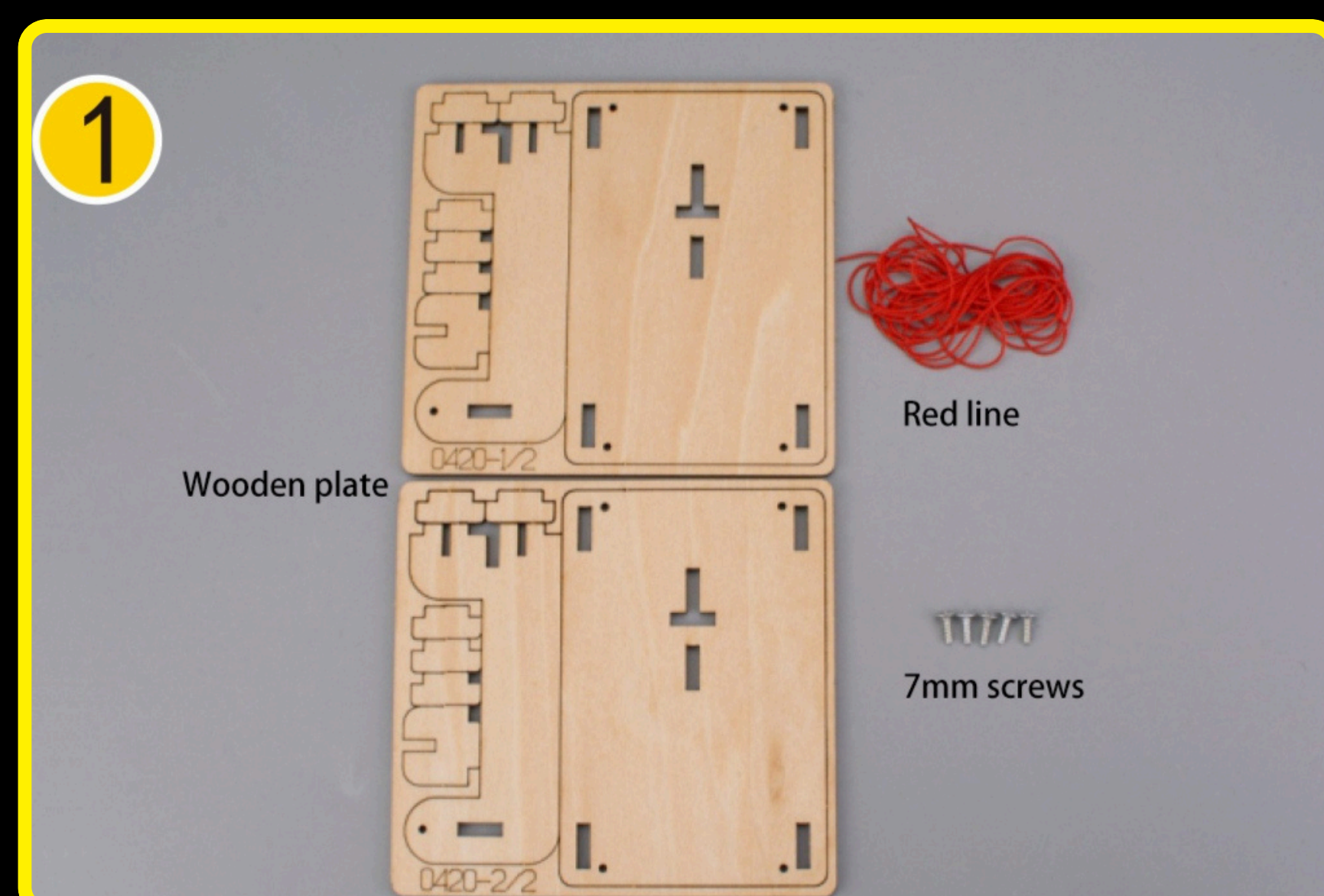
A long time ago, a smart person named Buckminster Fuller said that this kind of structure is like how planets and stars work in the universe. They push against each other and pull on each other, just like magnets! That's why tensegrity structures look like they're floating in the air.

Fuller's ideas have had a significant impact on architecture, engineering, and art, and tensegrity principles are used in various applications today.

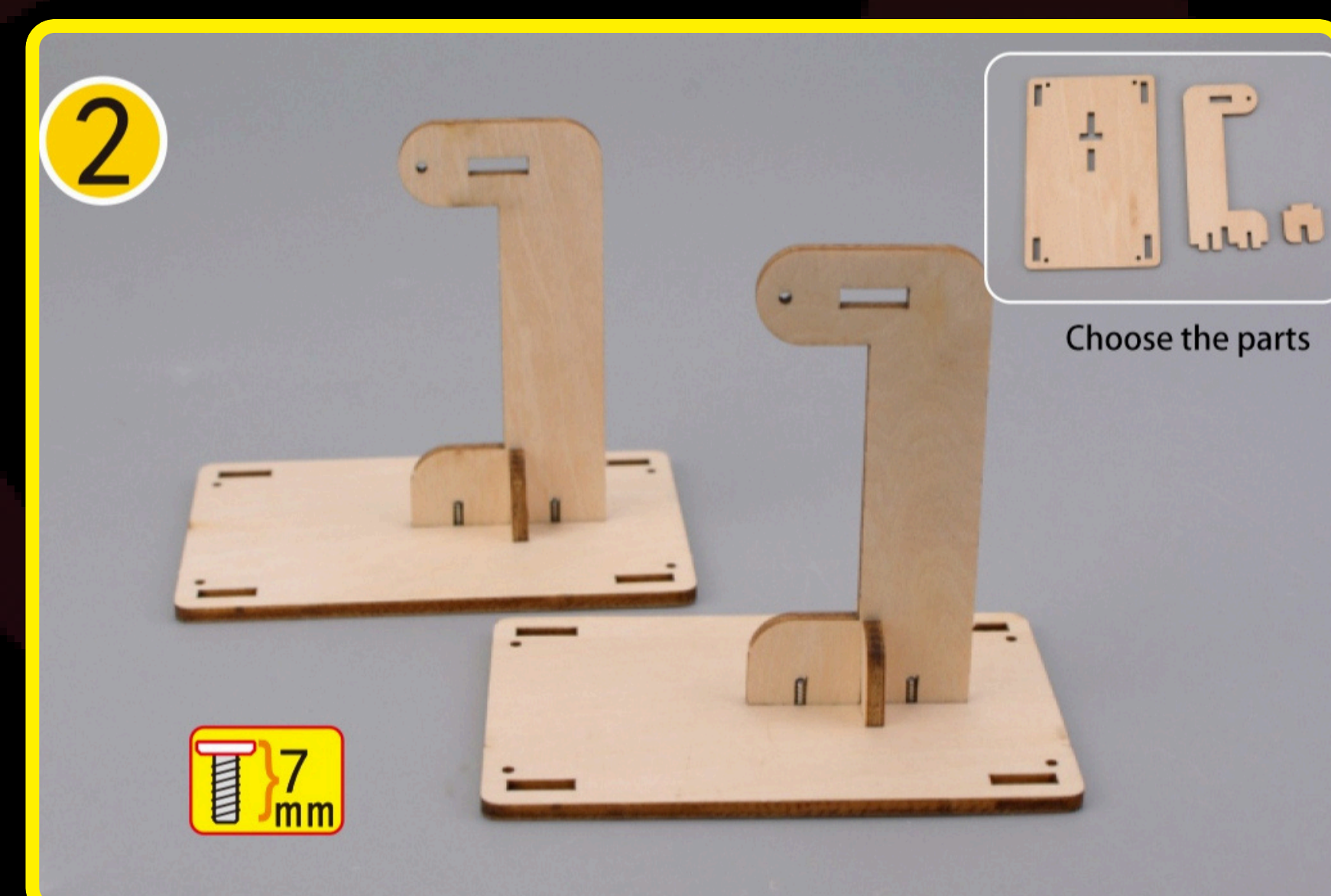


IMPORTANT! KEEP SAFE

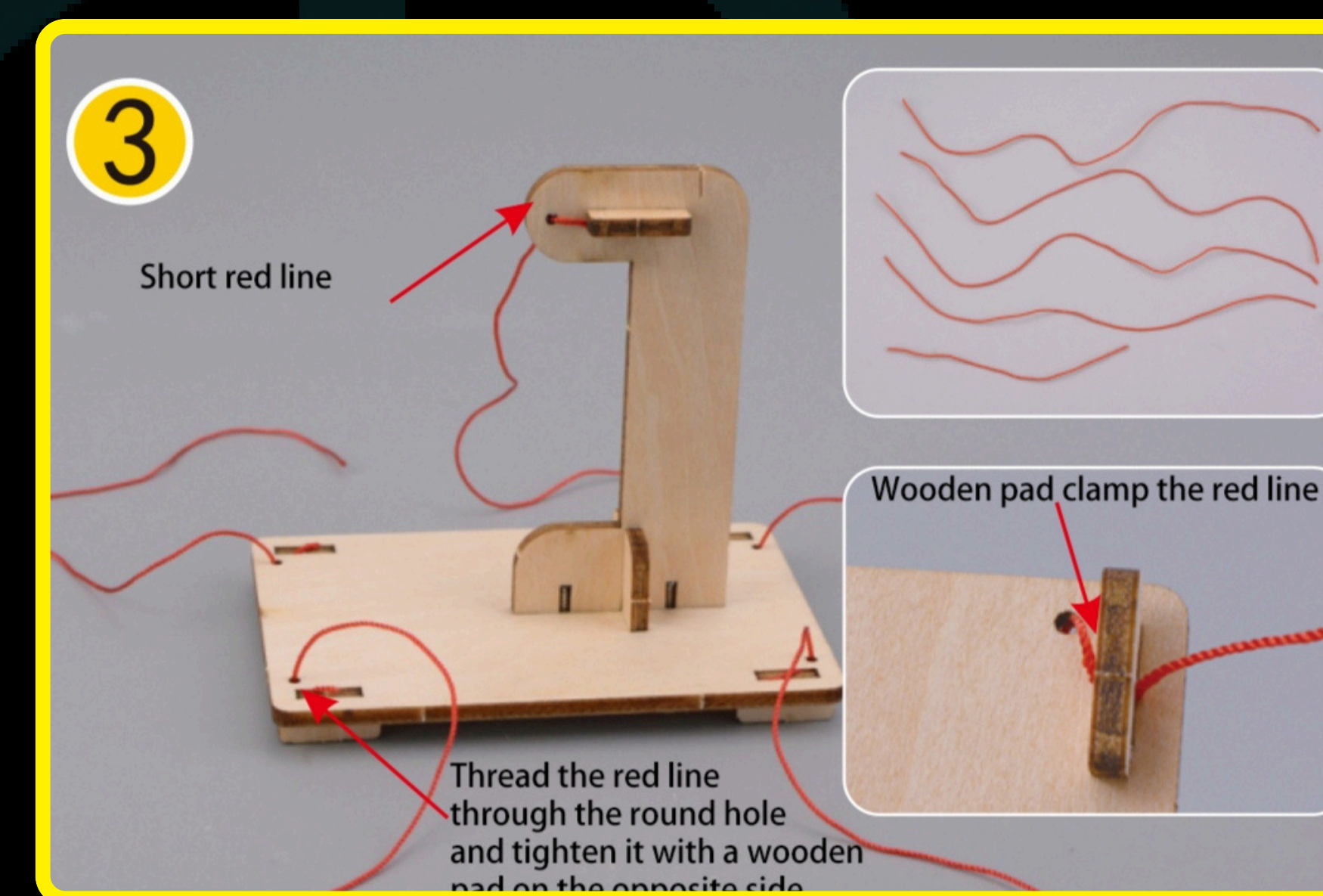
- Choking Hazard - This toy is not suitable for children under 6 years old. It contains small parts that could be a choking hazard.
- Be careful when opening the pack! Small bits can go missing quickly. Losing these bits might stop your model from working.
- Don't build this alone! It's not safe to do it by yourself. Ask a grown-up like your mum, dad, or teacher to help.
- Read the instructions carefully. This will help you make your model. If you don't understand something, ask for help. It's okay to ask - it's part of learning.



1. Prepare all the bits and gadgets in order

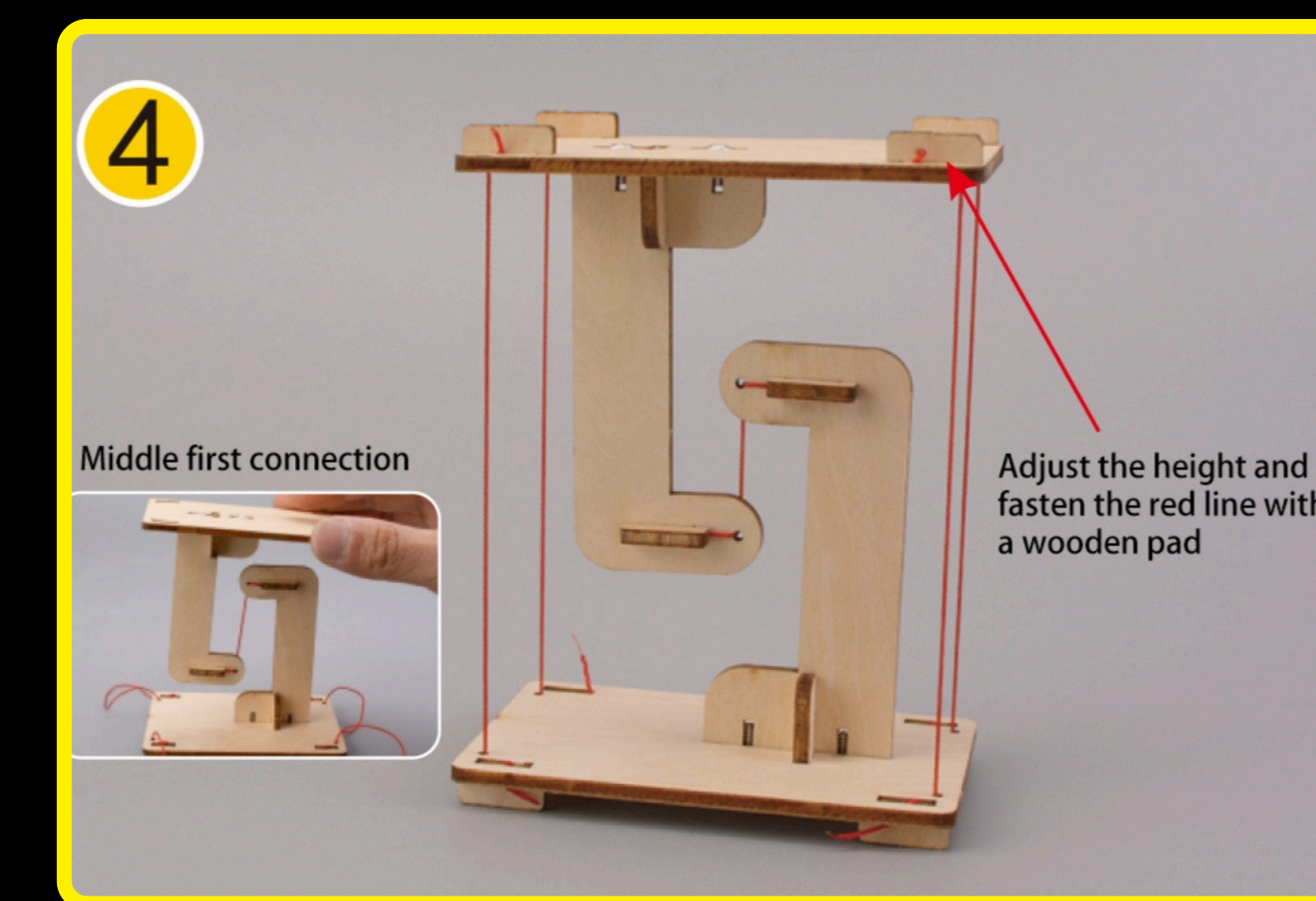


2. Use 7 mm screws to fix the brackets as shown.



3. Use scissors to cut four long (about 16 cm) and one short (about 9 cm) pieces of red thread. Put one end of the red thread through the round holes (refer above picture) and clamp it with a wooden pad on the other side.

Note : Use scissors carefully!



4. First take both brackets and and fix the middle connection via the short red thread in the middle.

Then connect the four corners in the same way.

(Adjust the height appropriately until the structure is stabilised)

Now your Tensegrity Structure is complete.

OBJECTIVE OF THE TENSEGRITY STRUCTURE COURSE

- Learn about the special design of tension structures.
- Practice making tension structures and explore different designs.
- Develop a love of learning and discovery, and learn to think like a scientist.
- Learn how to work independently, find problems, and solve them.

COURSE EXPLANATION

This little experiment teaches kids to make and test a tension structure.

Study how tension structures work and why they stay balanced. A tension structure is made of two parts: a hard rod and a soft cable. When it's built, it looks like it's floating in the air, which is very surprising. It makes you wonder how it can stay balanced.

Tension structures have three special features:

- Prestress: The cables are pulled tight to make the structure strong.
- Self-balancing: The structure stays balanced without any outside help.
- Hinges: The cables and rods are connected with hinges.
- We can also explore other amazing tension structures.