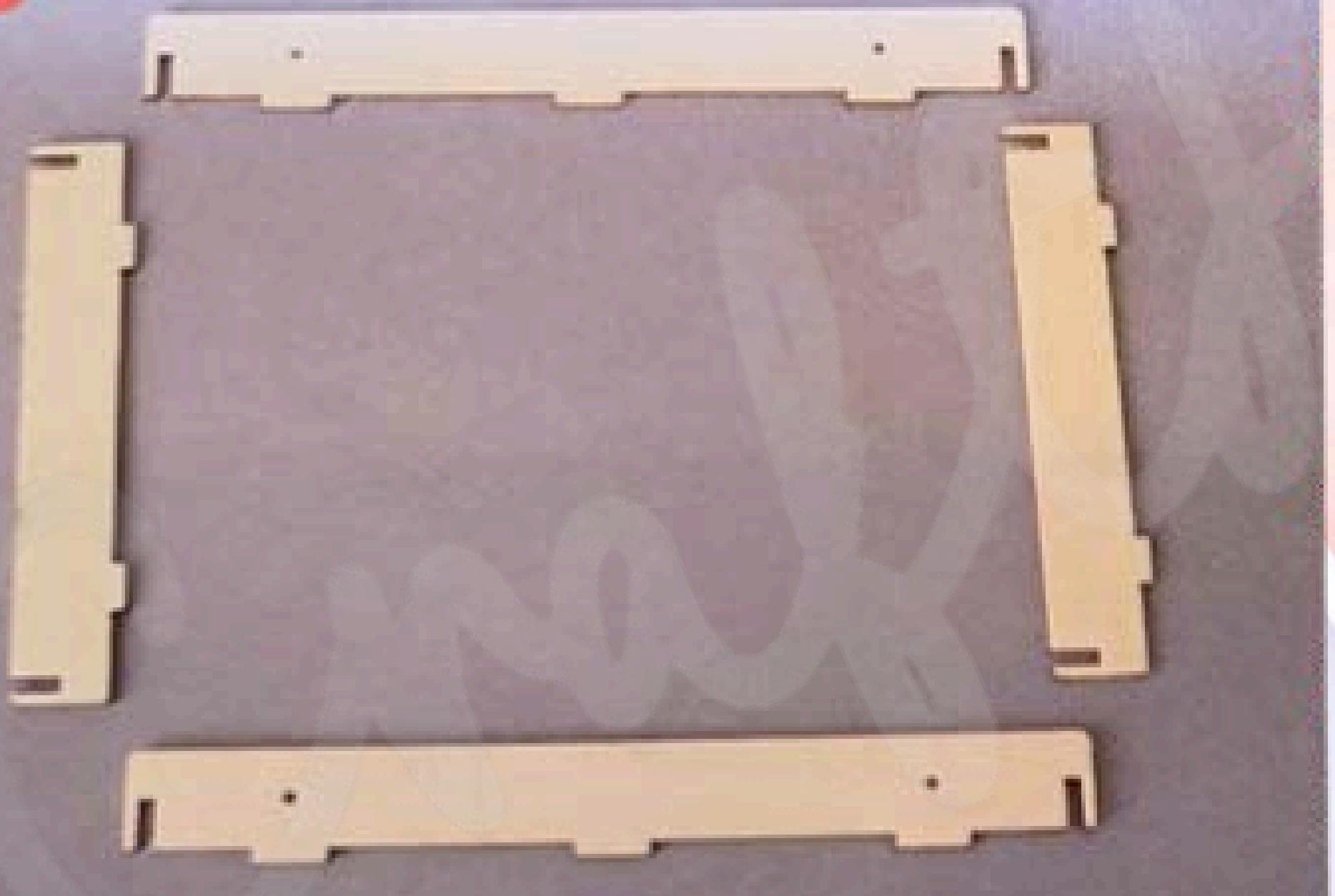


The wooden parts are divided into 5 boards. Each board has a number marked in the lower right corner to help you easily find the corresponding parts during assembly.

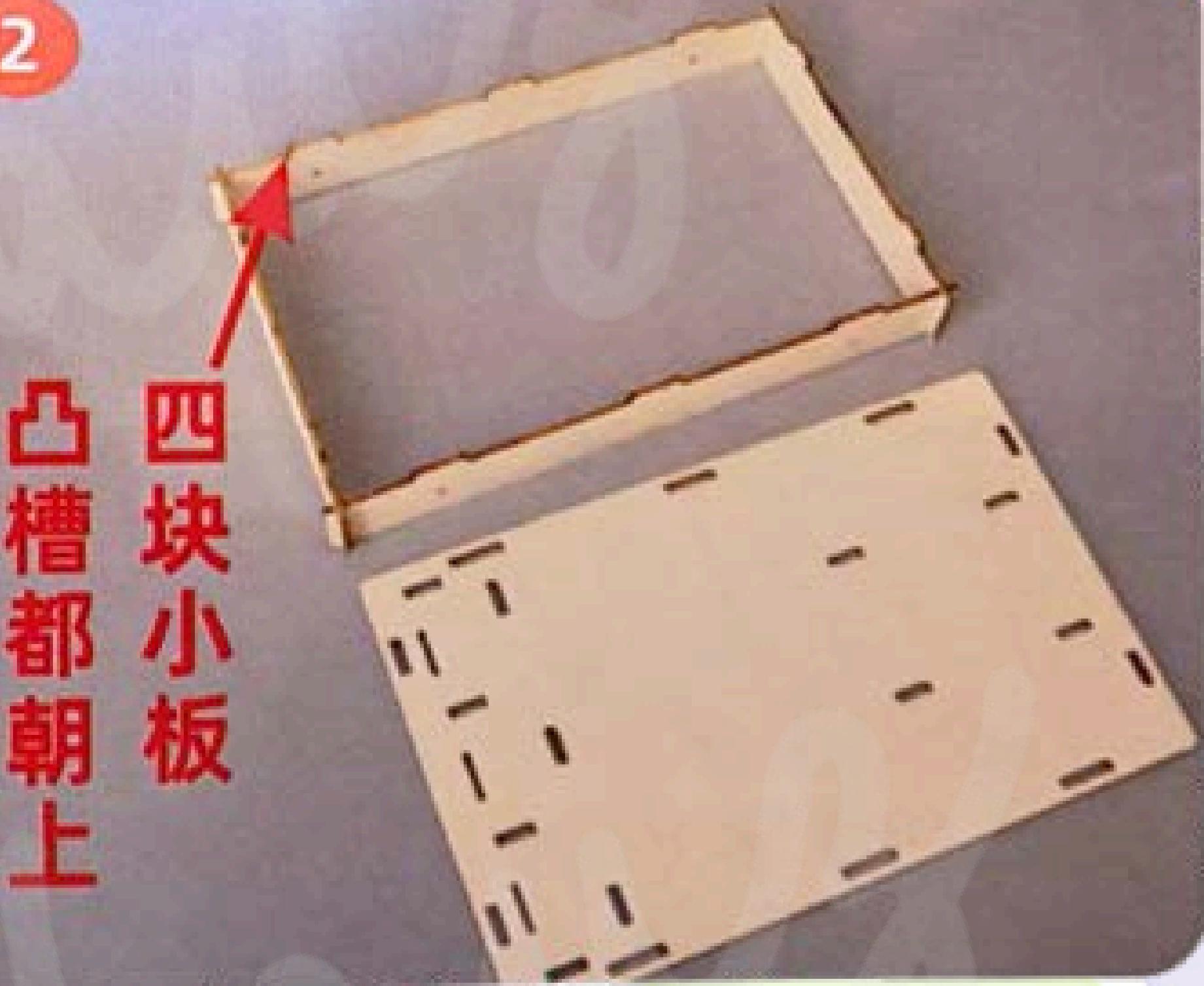
Note: Some of the small parts look very similar.

Carefully compare the parts with the text and images below before assembling.

1



2



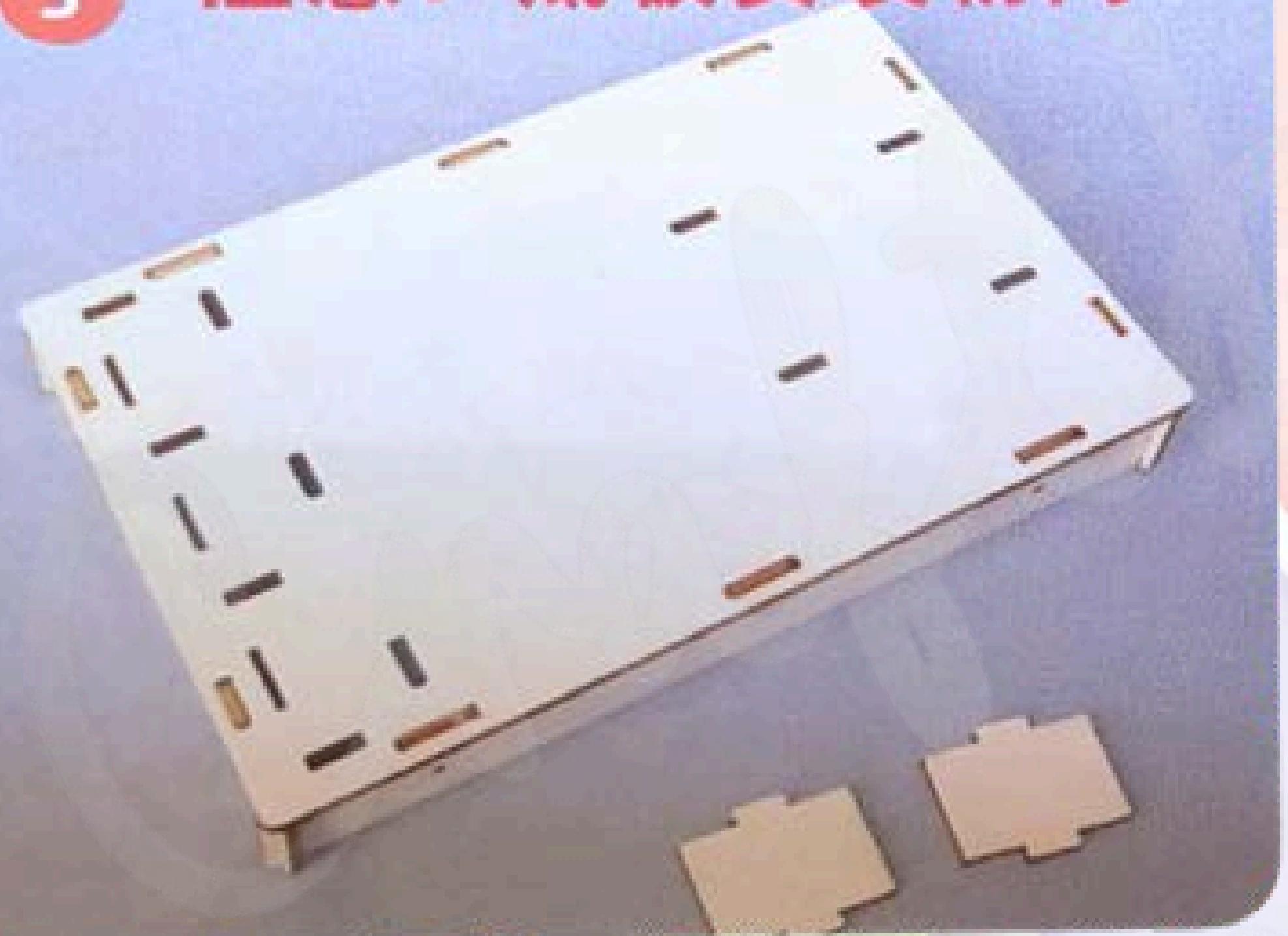
Find the parts shown in the picture from board No. 1 and board No. 2.

As shown in the picture, assemble the base frame.

Note: The four small boards should have their raised slots facing upward.
Next, prepare the bottom board.

3

注意：底板安装朝向

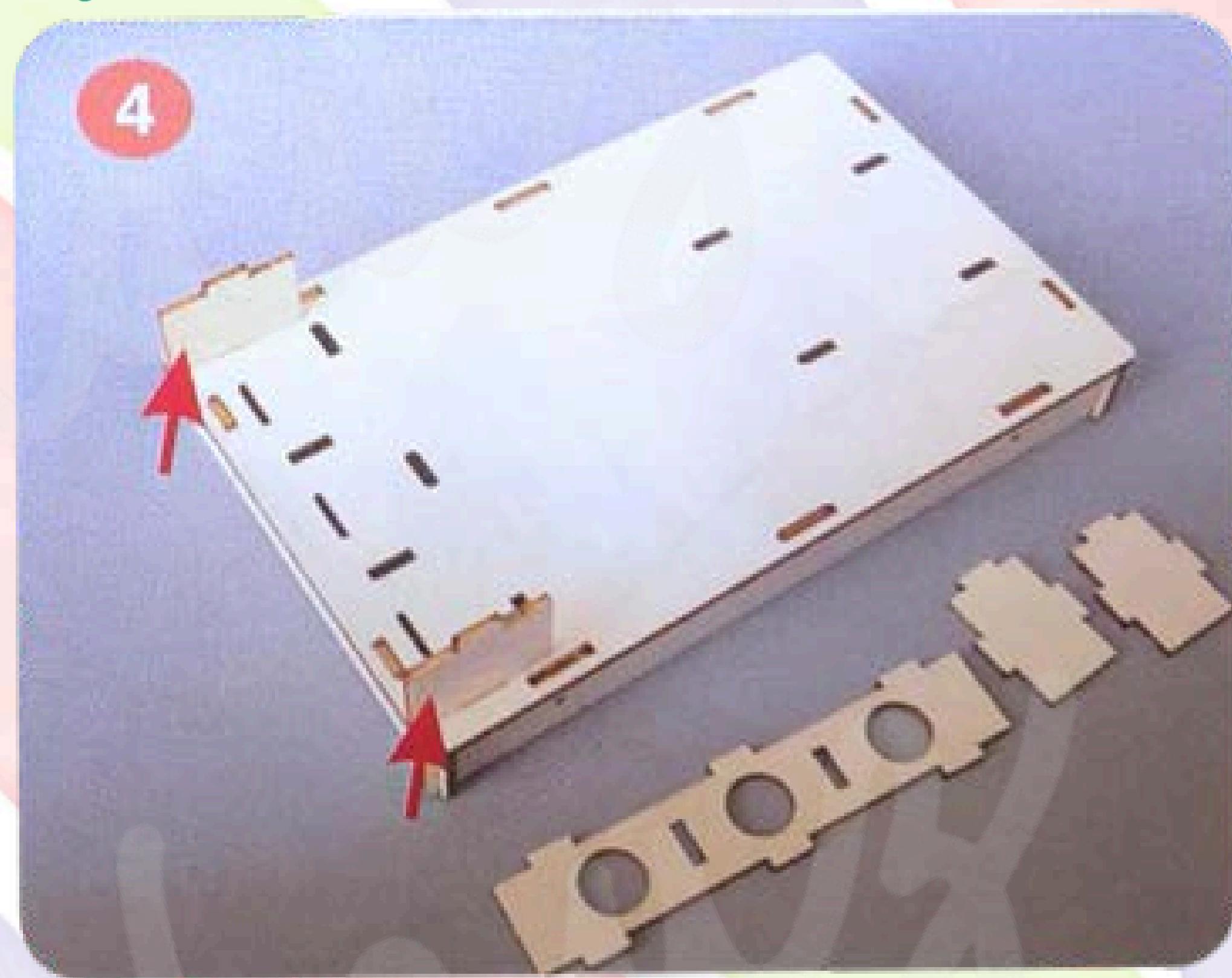


As shown in the picture, attach the base plate onto the base frame.

Then, find two parts from board No. 3.

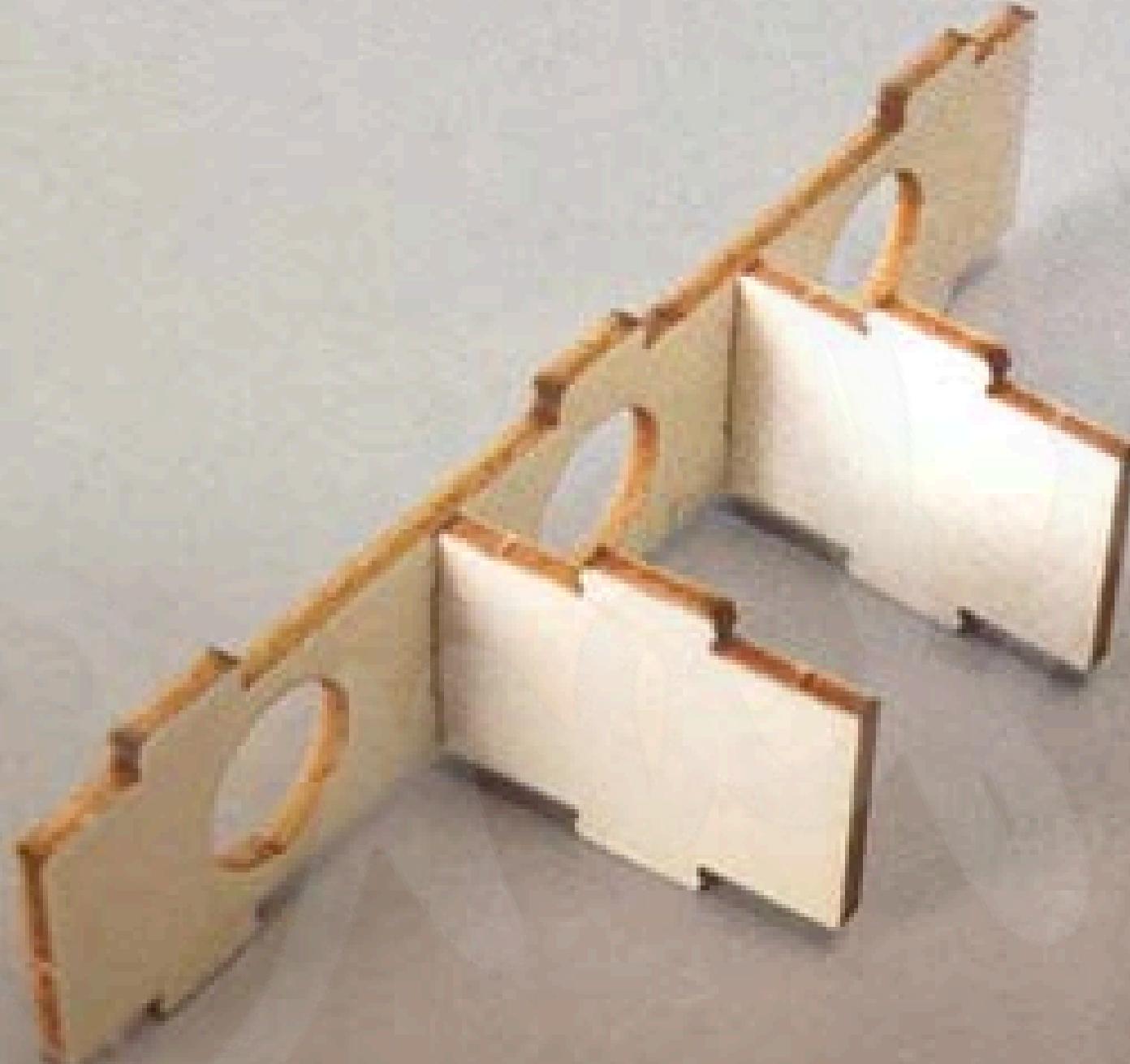
Note: Pay attention to the orientation of the base plate.

4



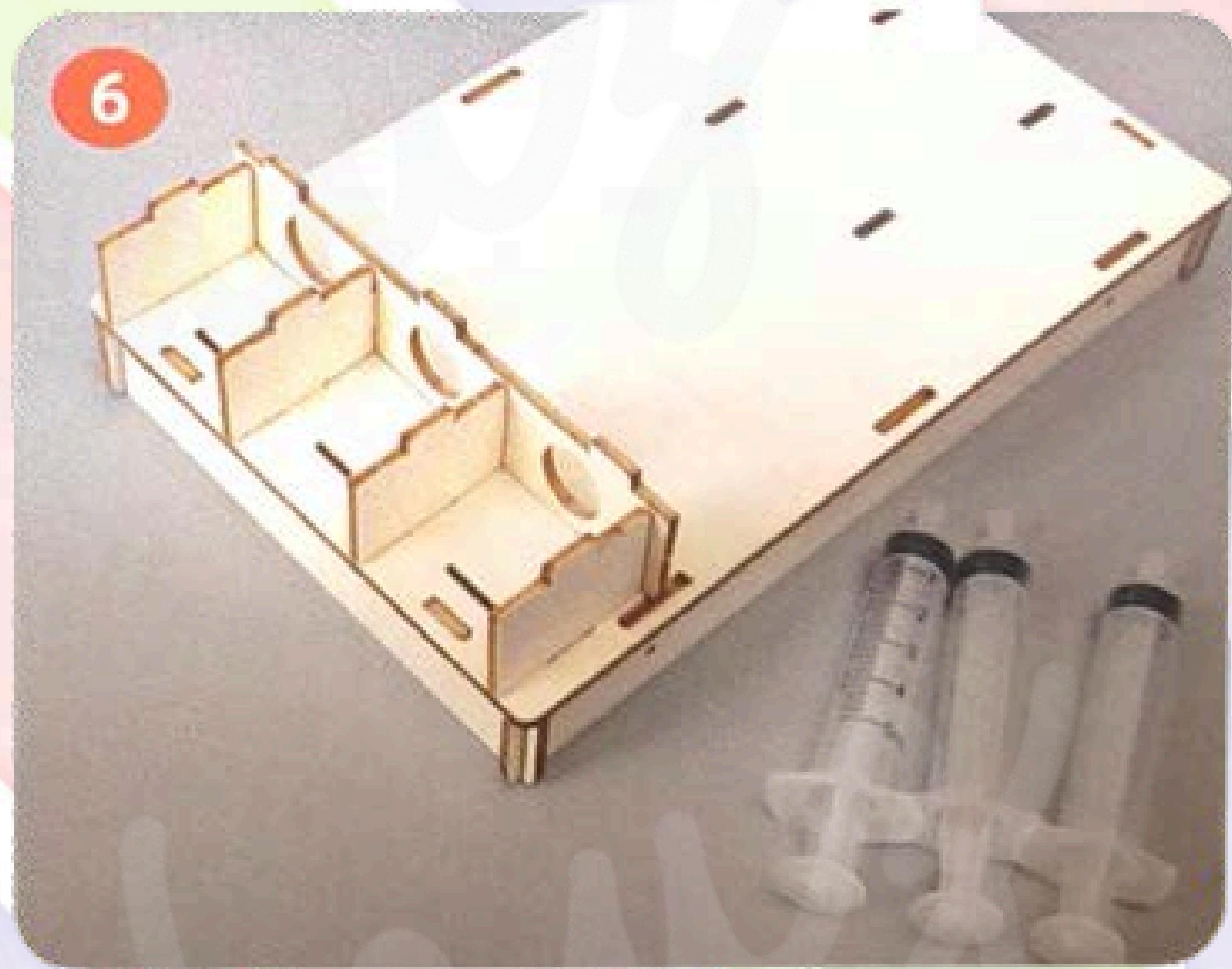
As shown in the picture, insert the small boards into the holes on the sides of the base plate. Then, prepare two types of parts from board No. 2.

5



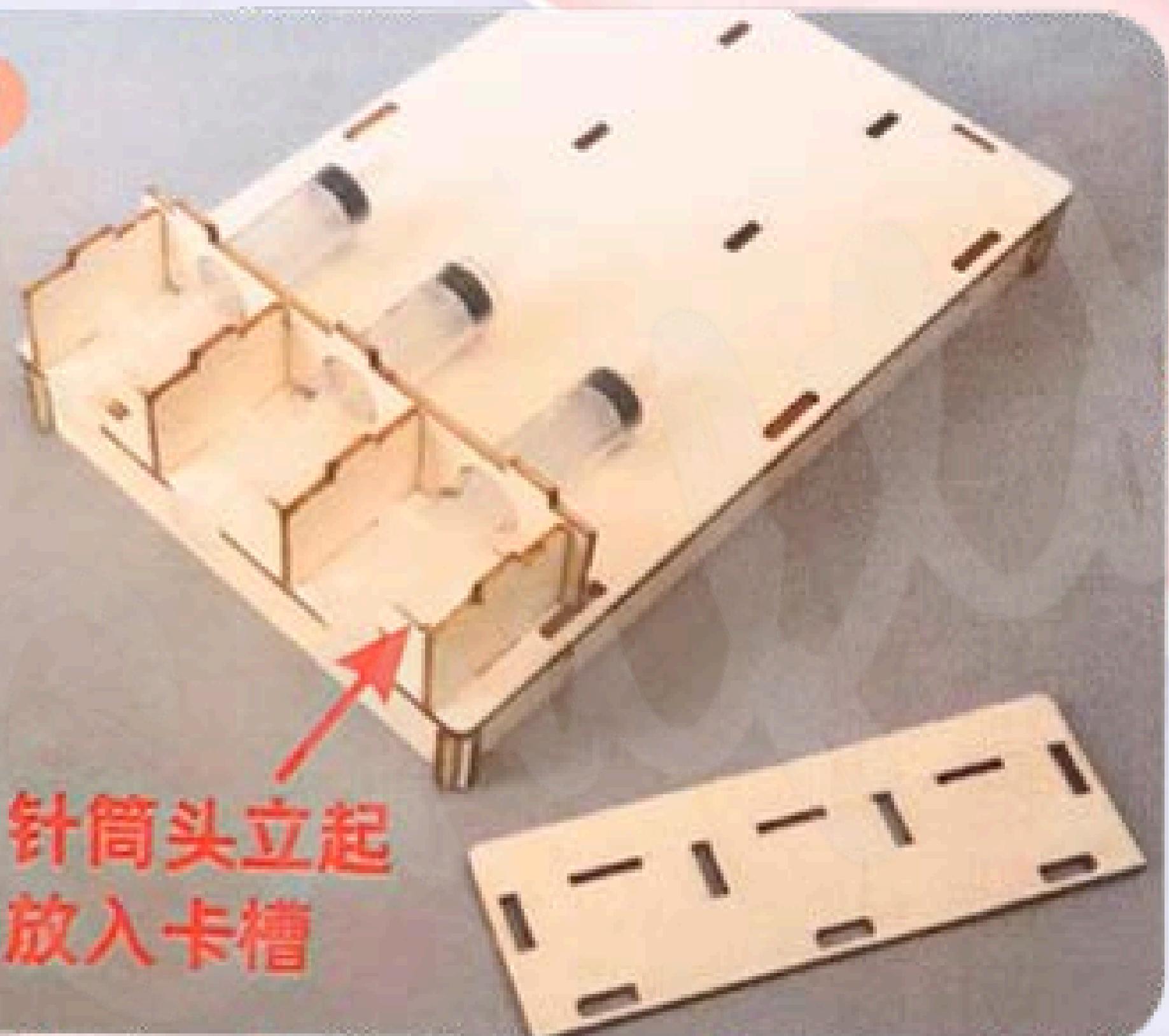
As shown in the picture, insert the parts into the slots.

6



As shown in the picture, attach the assembled parts from Step 5 onto the base plate, and prepare three large syringes.

7



8



As shown in the picture, insert the syringe barrels vertically into the round holes, then place them into the slots.

Next, find the corresponding parts from board No. 2.

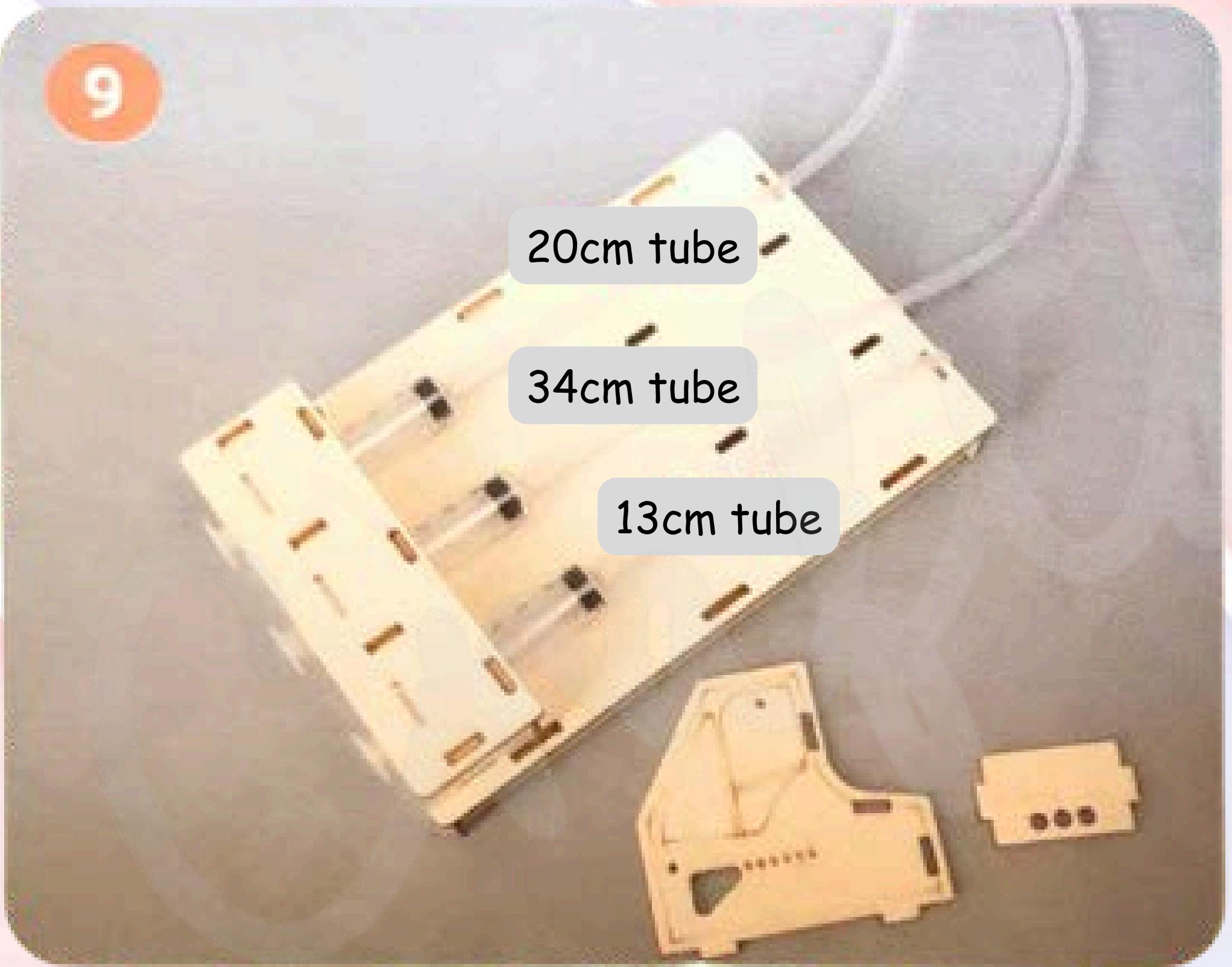
As shown in the picture, use the top board to secure the syringes in place.

Note: The syringe should click into the top and bottom slot.

Prepare three tubes of different lengths.

9

20cm tube
34cm tube
13cm tube



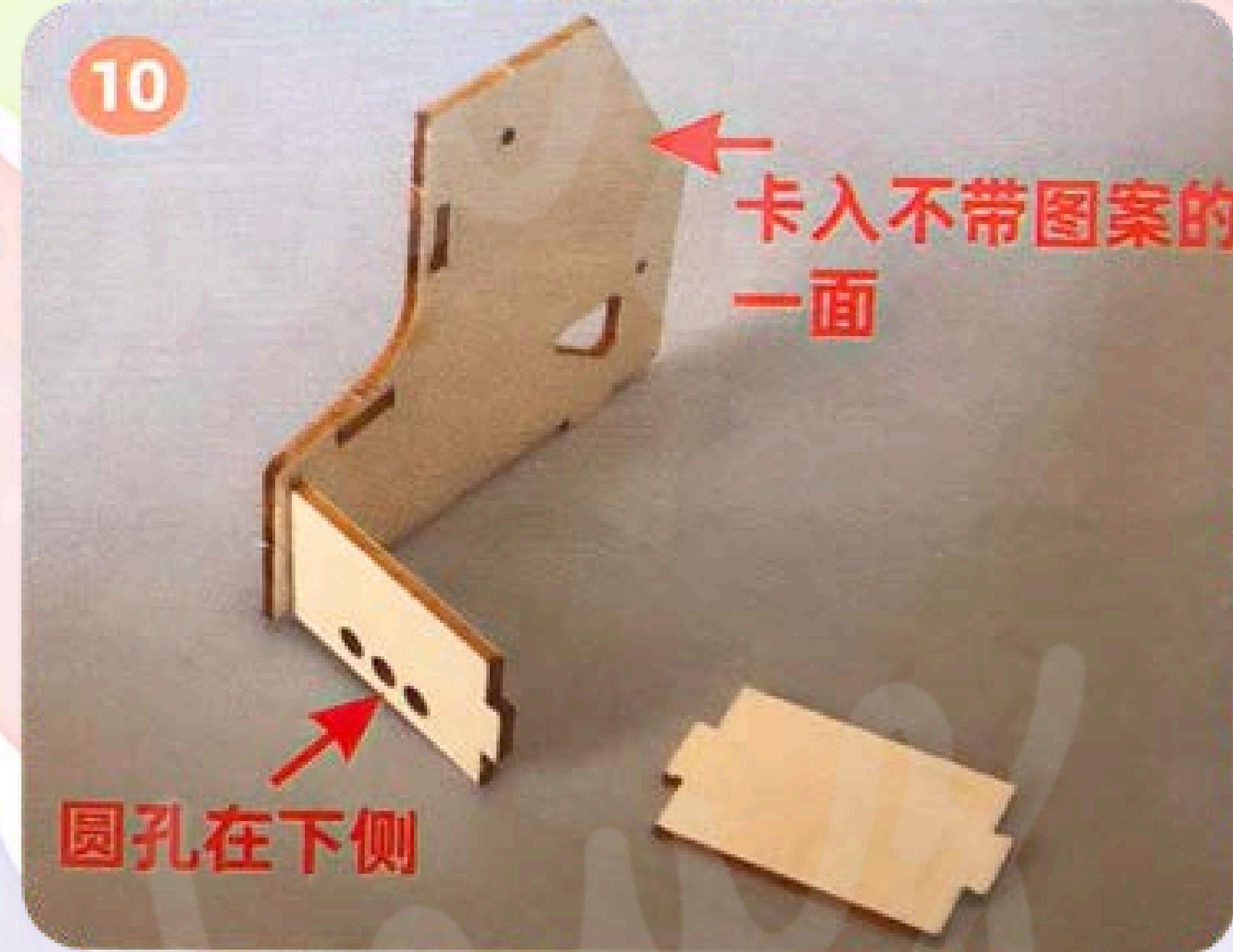
As shown in the picture, attach the soft tubes to the syringe tips according to the labels.

Next, find two types of parts from board No. 2 and board No. 4.

10

卡入不带图案的一面

圆孔在下侧

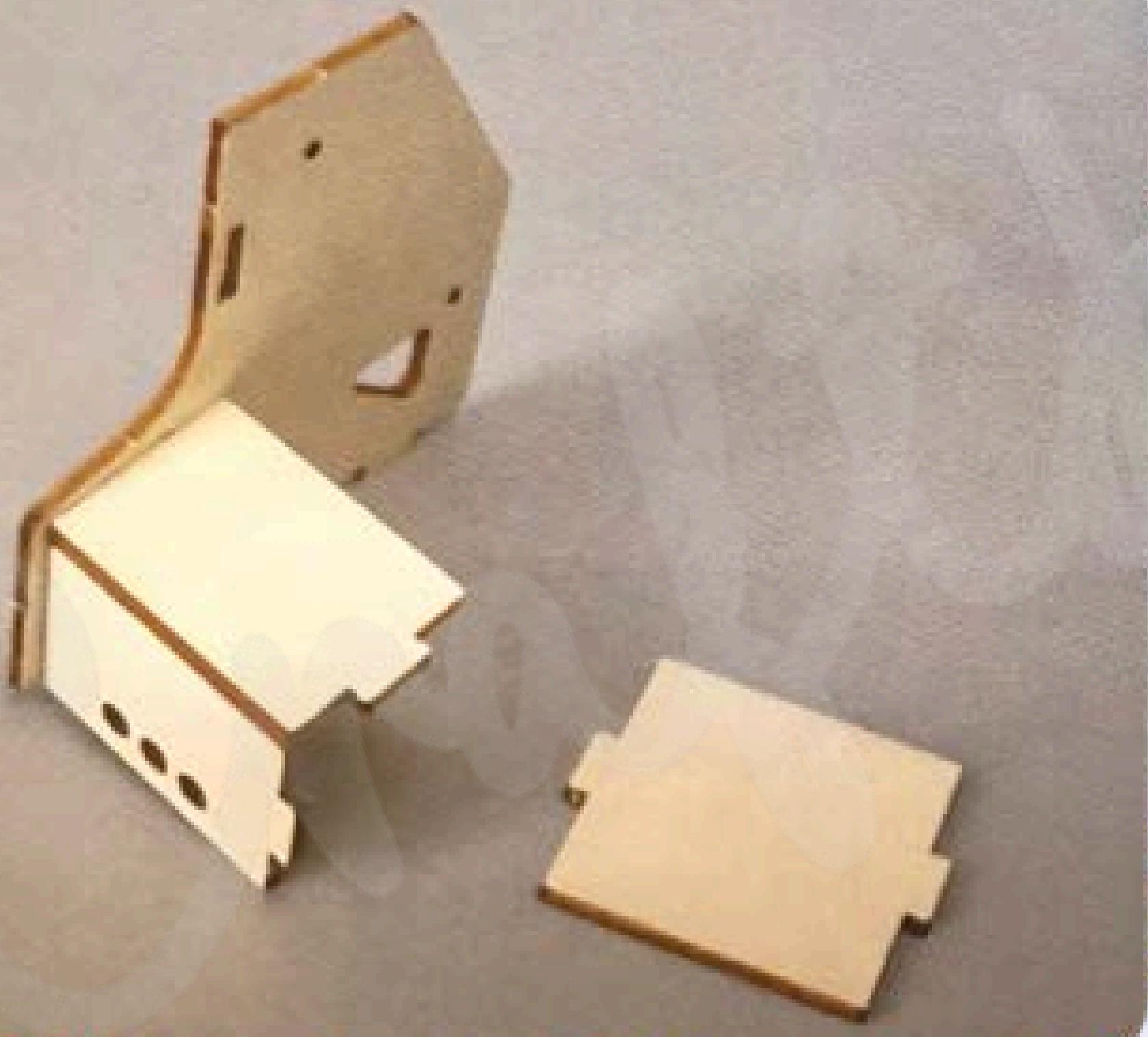


As shown in the picture, insert the small board into the side panel (the side without printed markings).

Note: The round hole should be at the bottom.

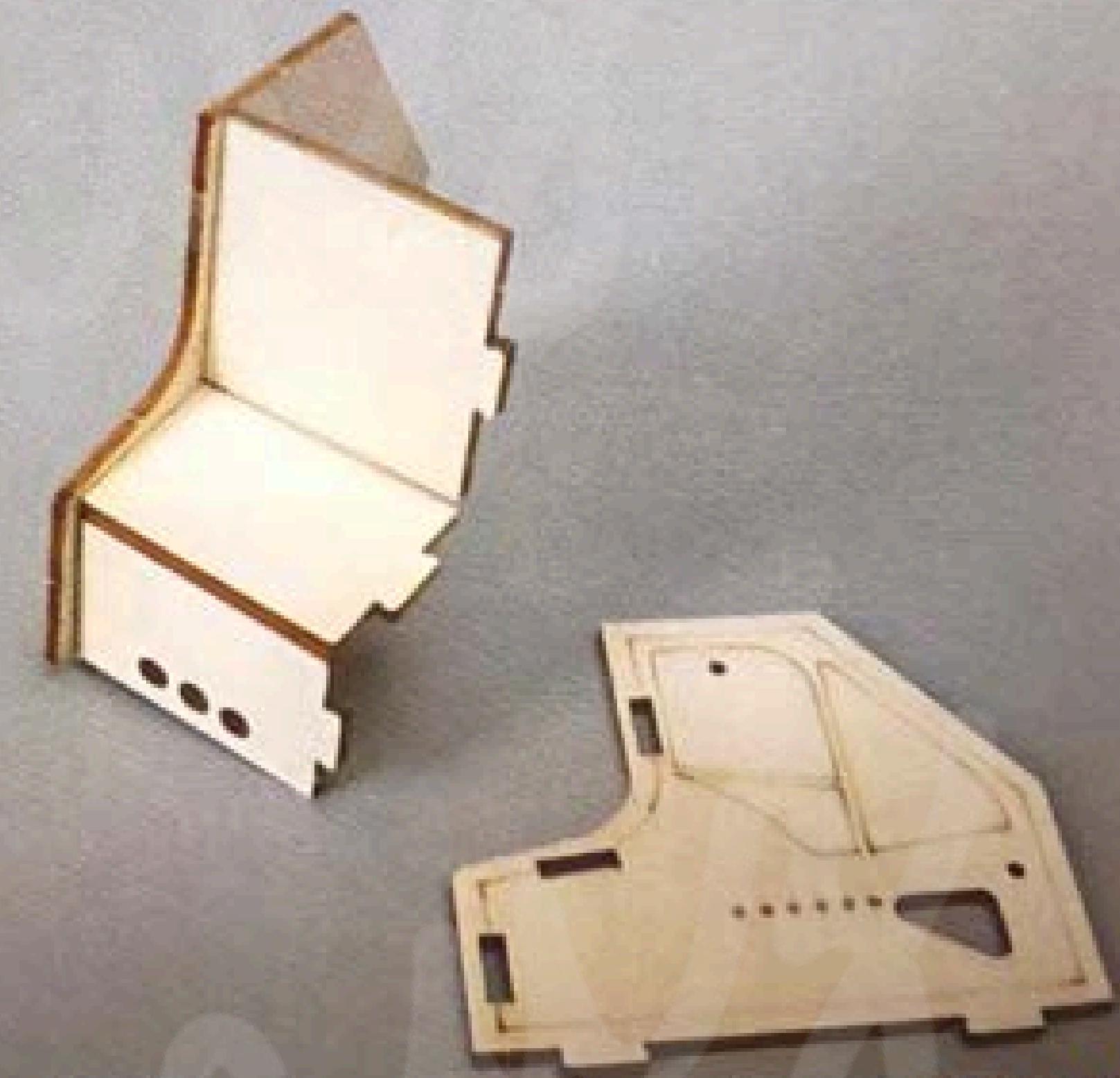
Then, find the corresponding parts from board No. 4.

11



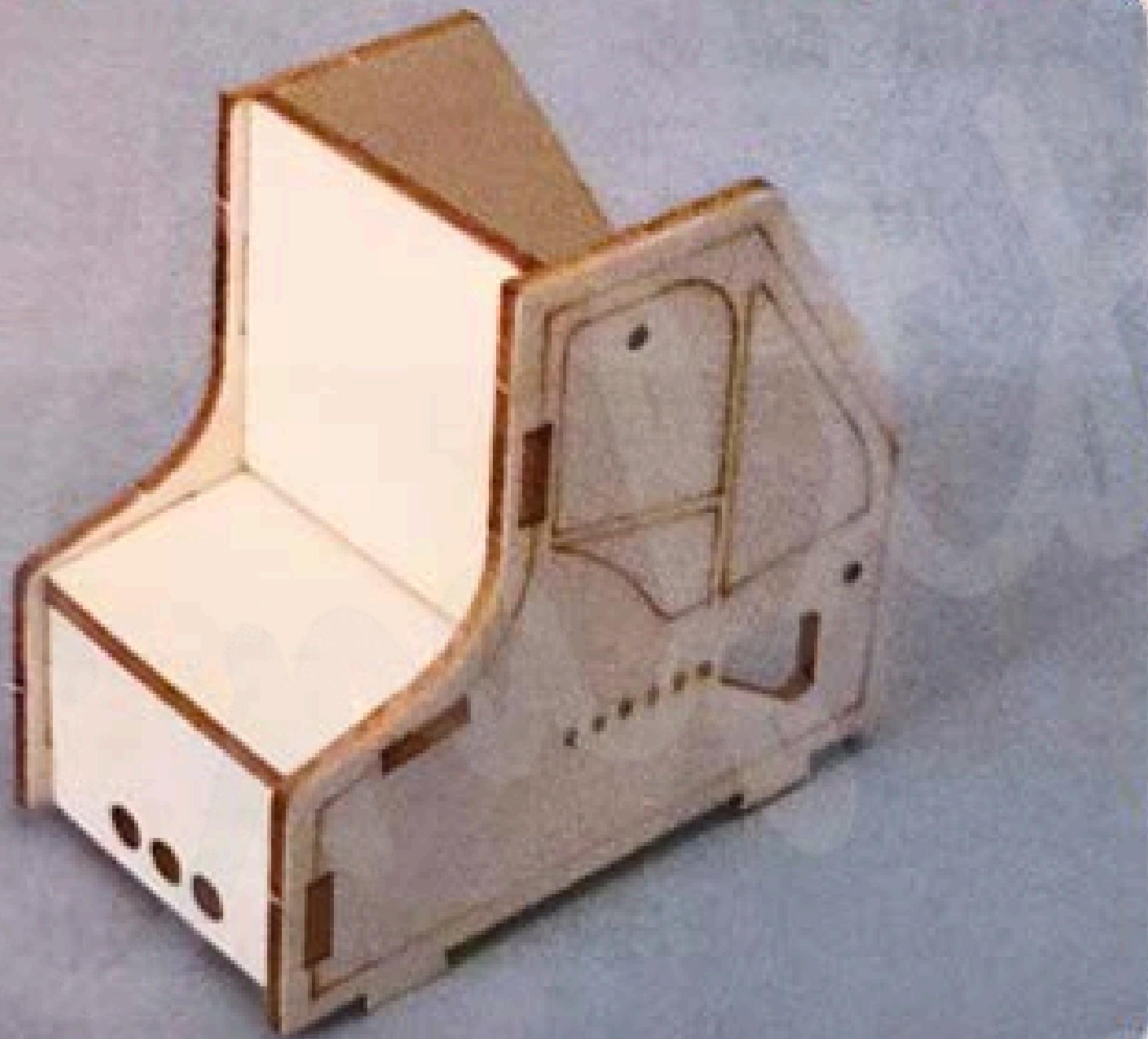
As shown in the picture, insert the side panel into place. Then, find the corresponding part from board No. 2.

12



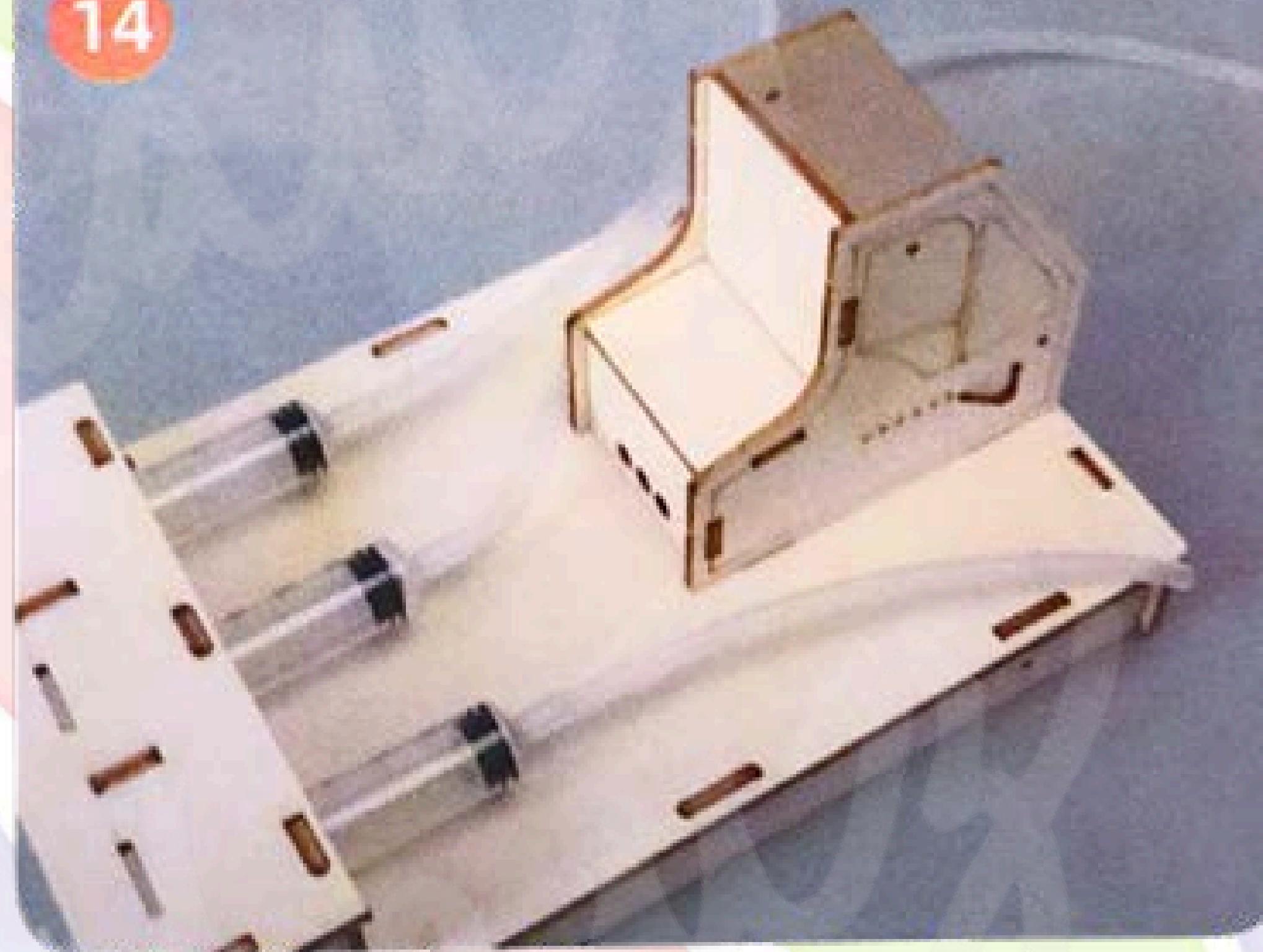
As shown in the picture, continue inserting the side panel, and then find the second side panel part from board No. 2.

13



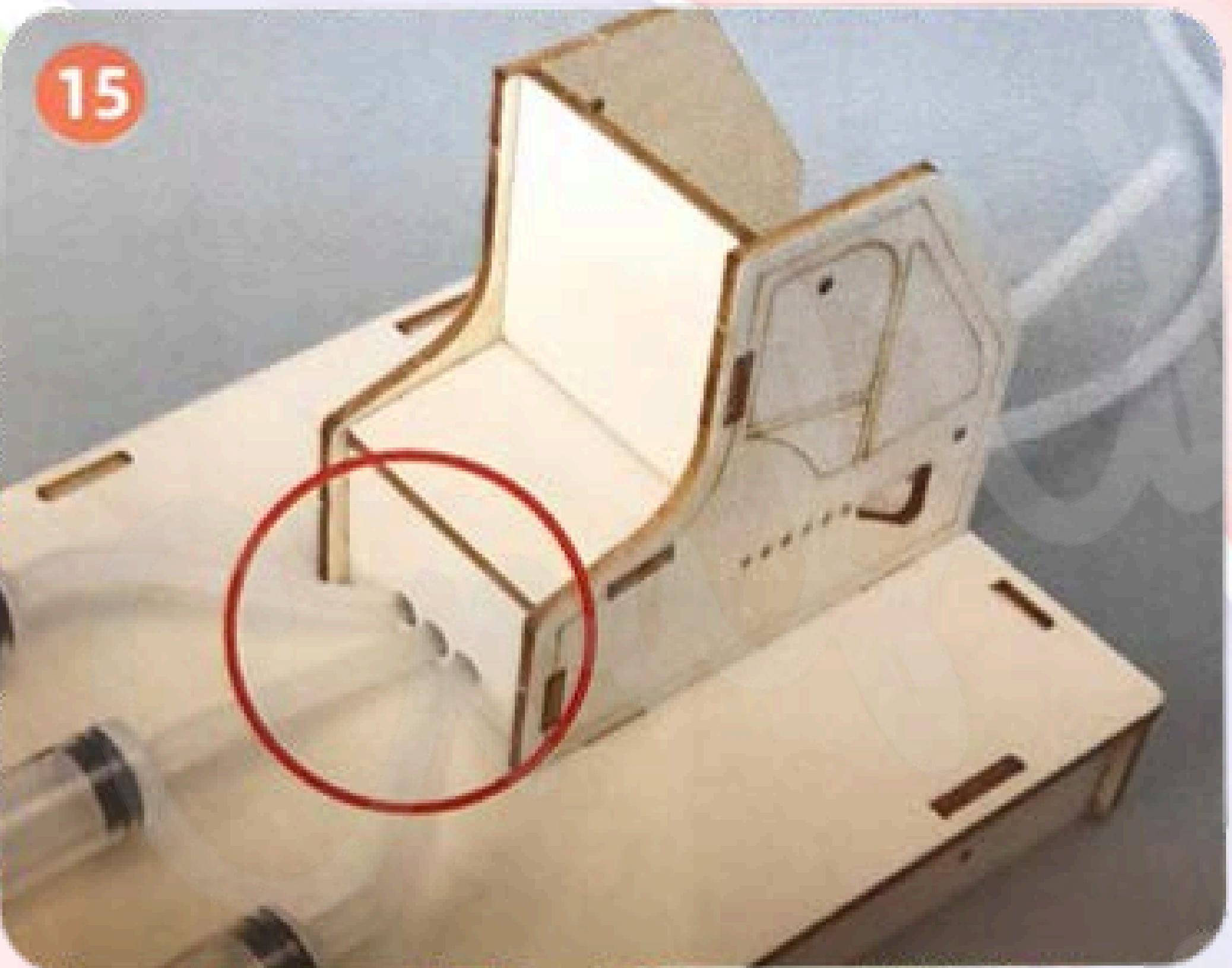
Install the side panels as shown in the picture.

14

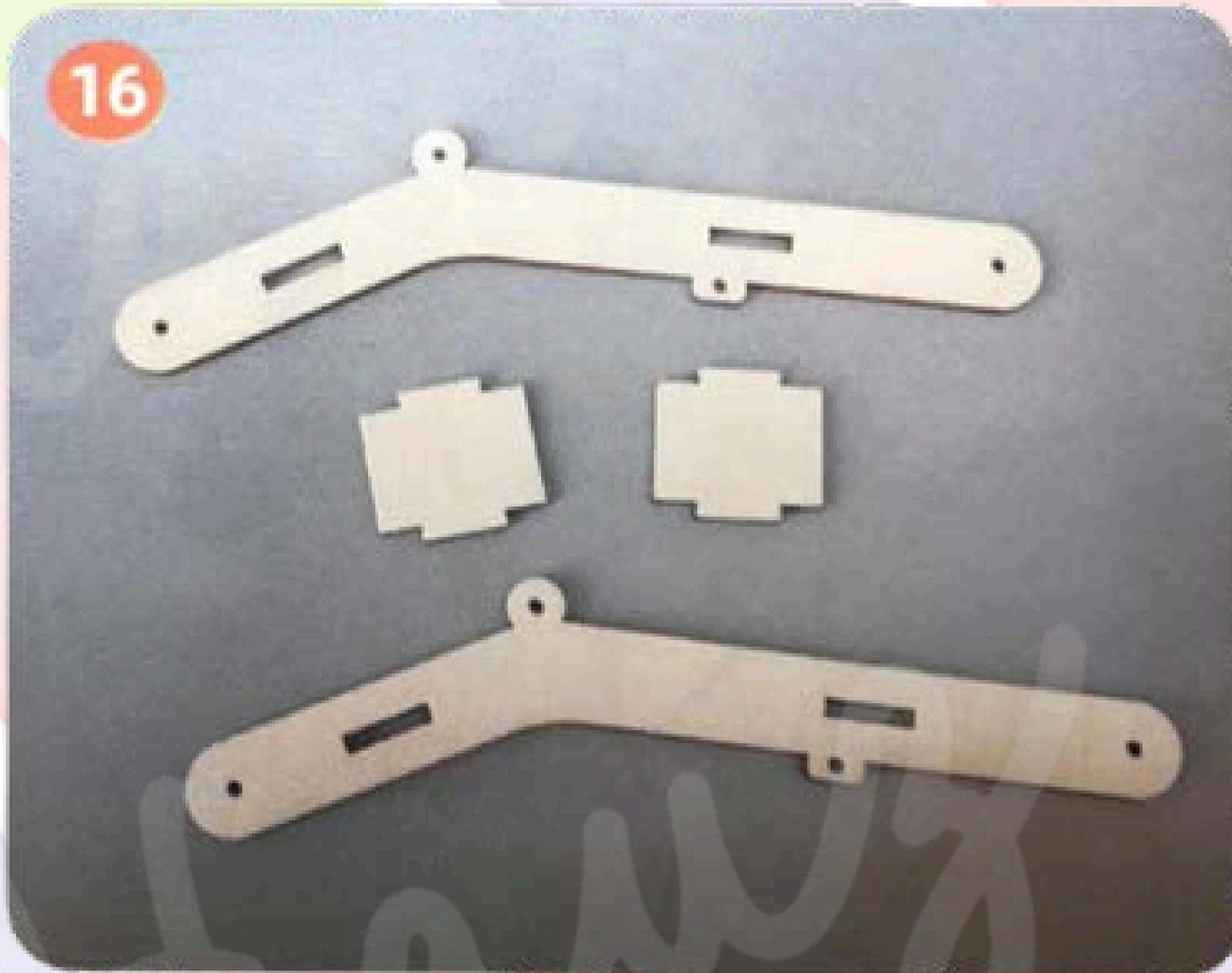


As shown in the picture, place the assembly from Step 13 onto the base plate.

15



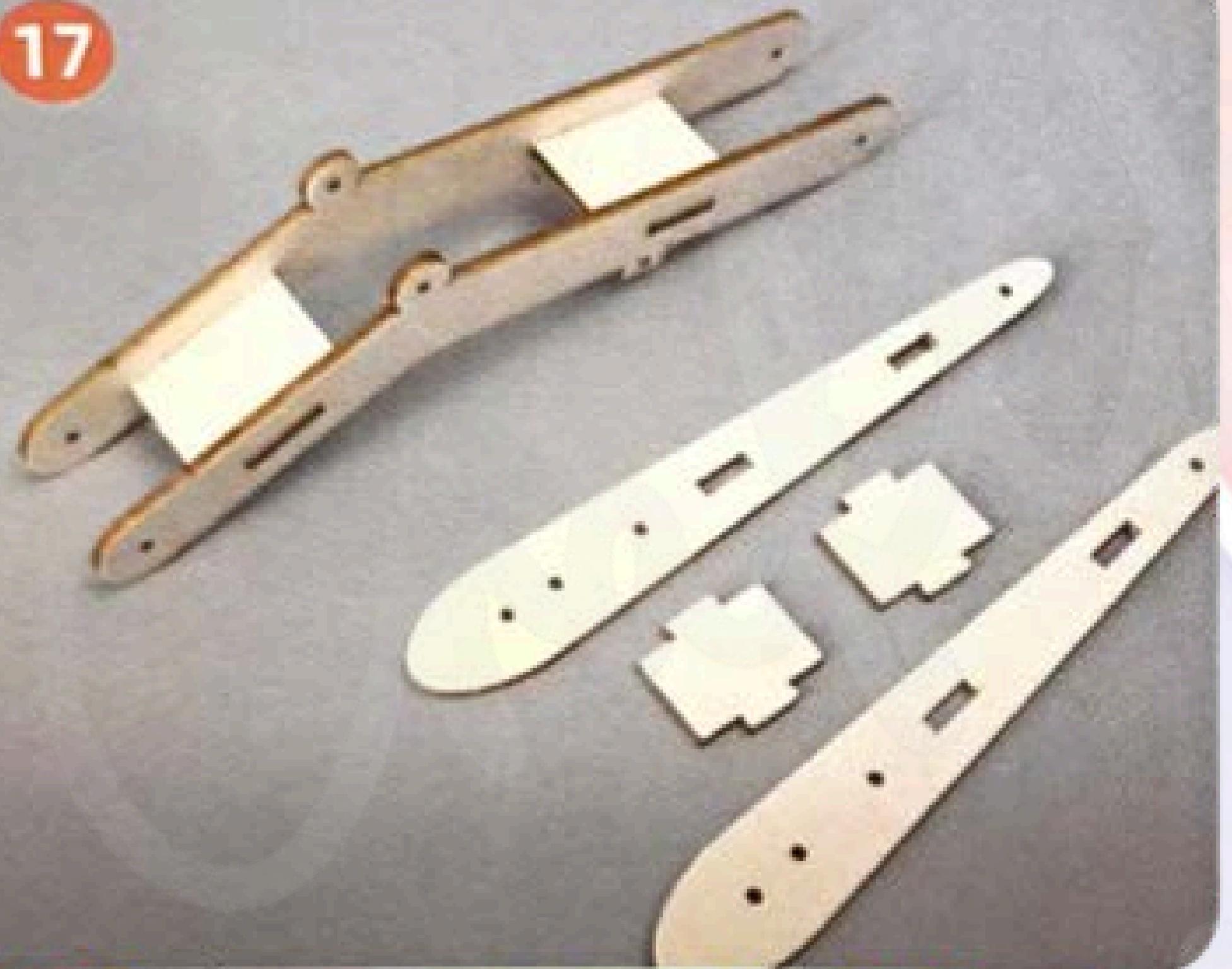
16



As shown in the picture, insert the soft tubes one by one through the round holes in order.

As shown in the picture, find the corresponding parts from board No. 1 and board No. 3.

17



11

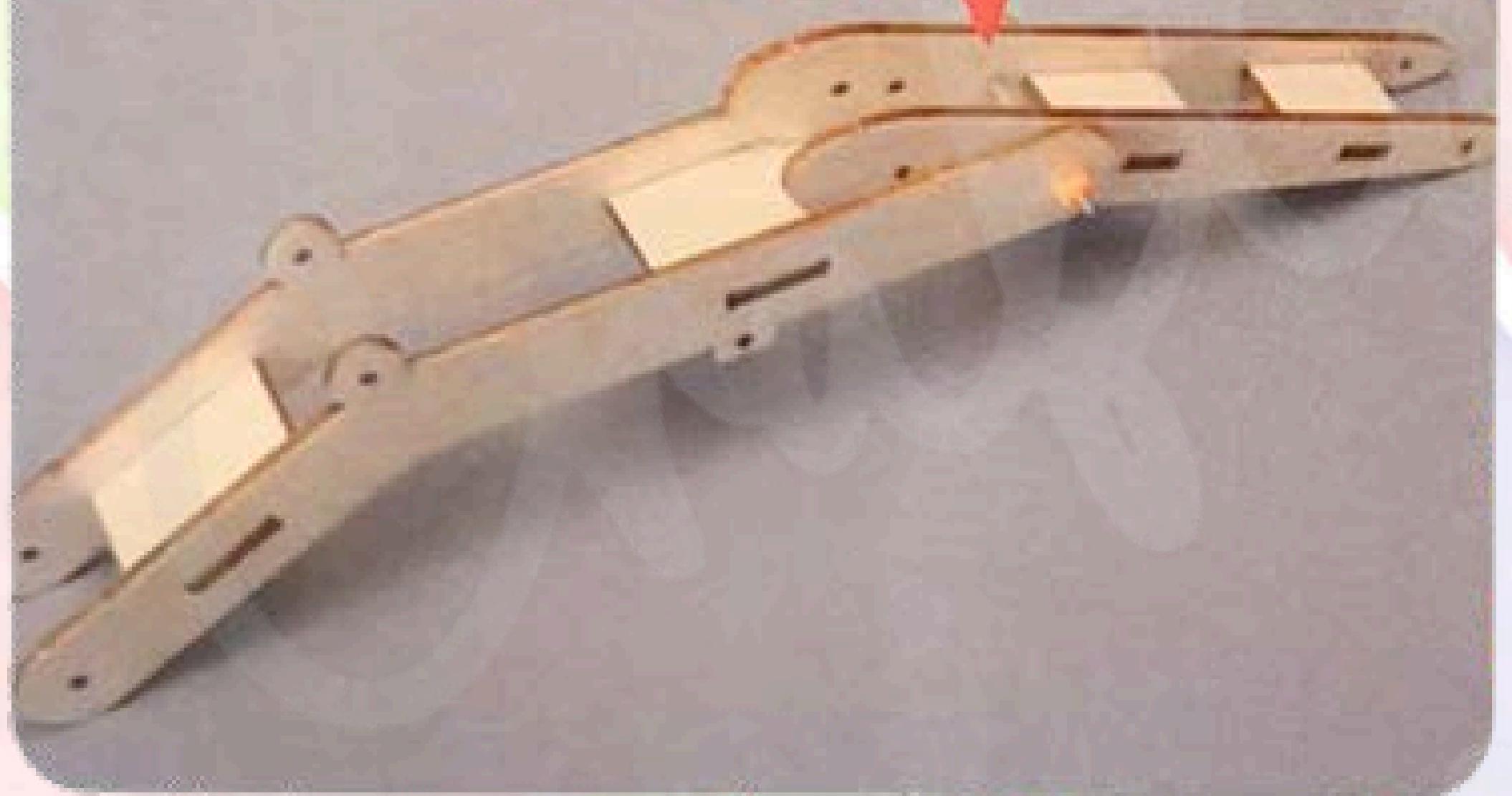


As shown in the picture, assemble Support Frame No. 1. Then, find two types of parts from board No. 1 and board No. 3.

As shown in the picture, assemble Support Frame No. 2. Prepare one 40 mm rod and two rubber sleeves.

19

穿入支架2的第三个孔
请勿穿错



Insert the 40mm rod through Support Frame No. 1 and the third hole of Support Frame No. 2

(be careful not to insert it into the wrong hole). Secure both sides with rubber sleeves as shown in the picture.

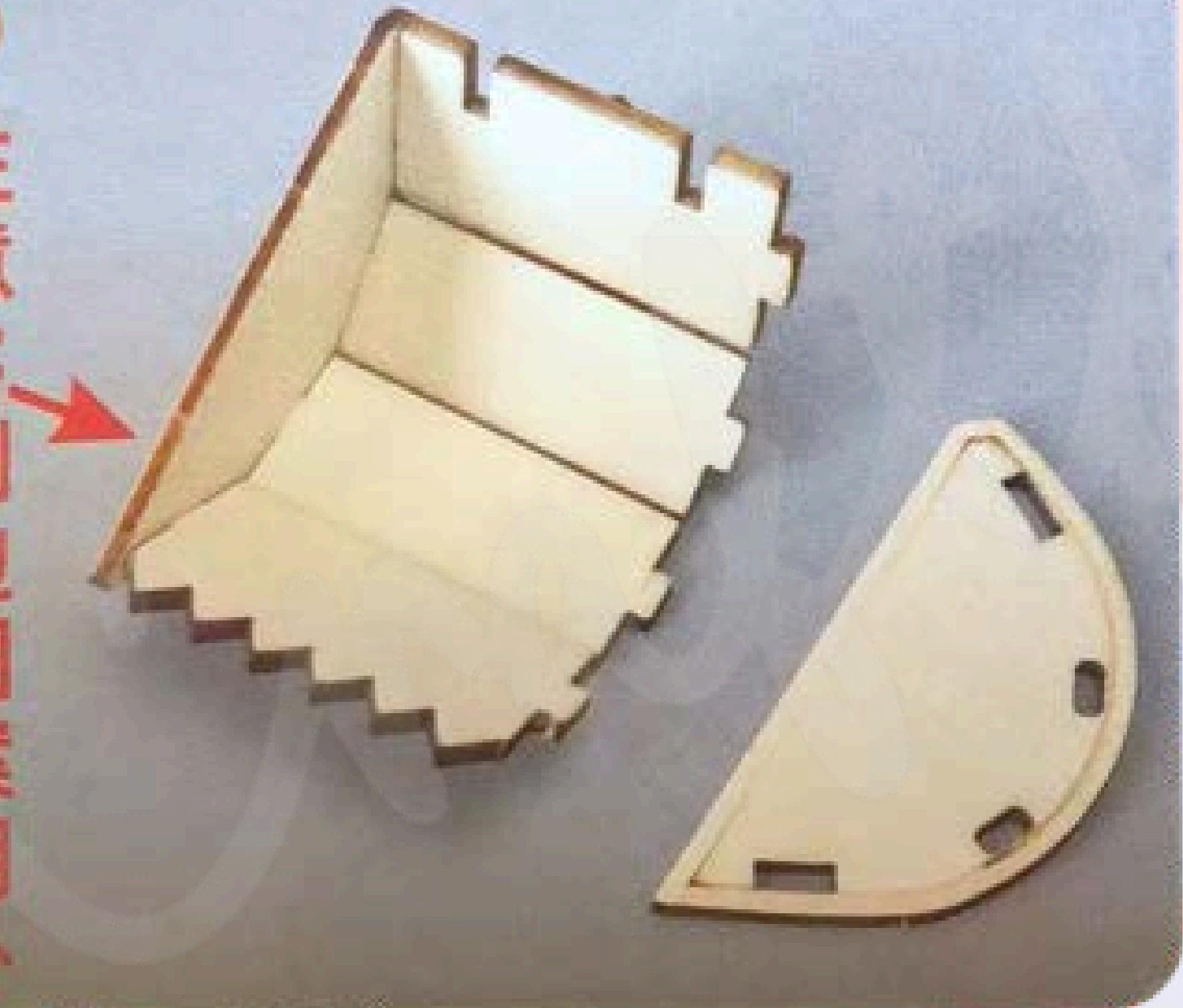
20



As shown in the picture, find the parts shown above from board No. 3.

21

注意：側邊圖案朝外

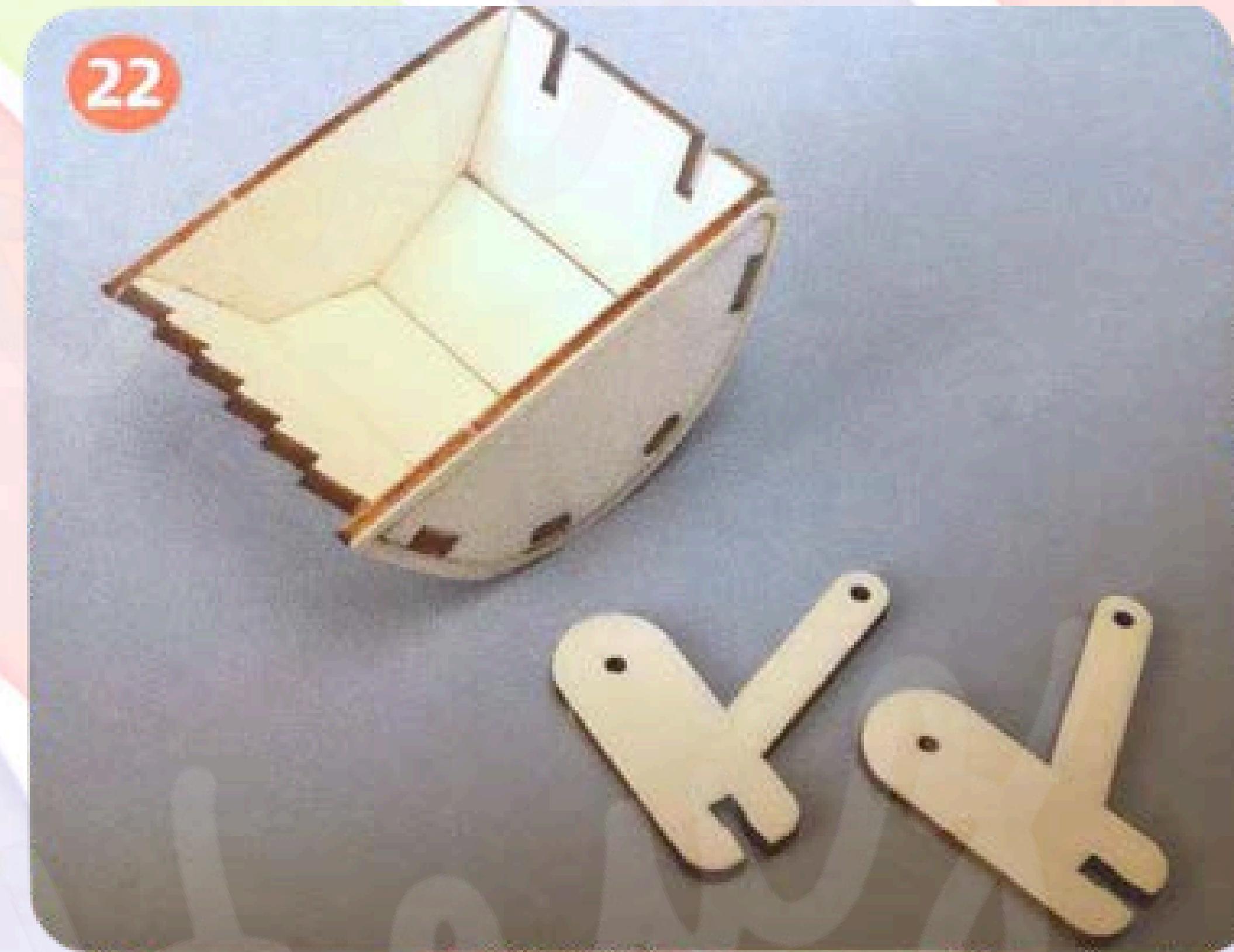


As shown in the picture, insert the four small boards one by one into the side panel.

Next, find the second side panel from board No. 3.

Note: The side with the printed markings should face outward.

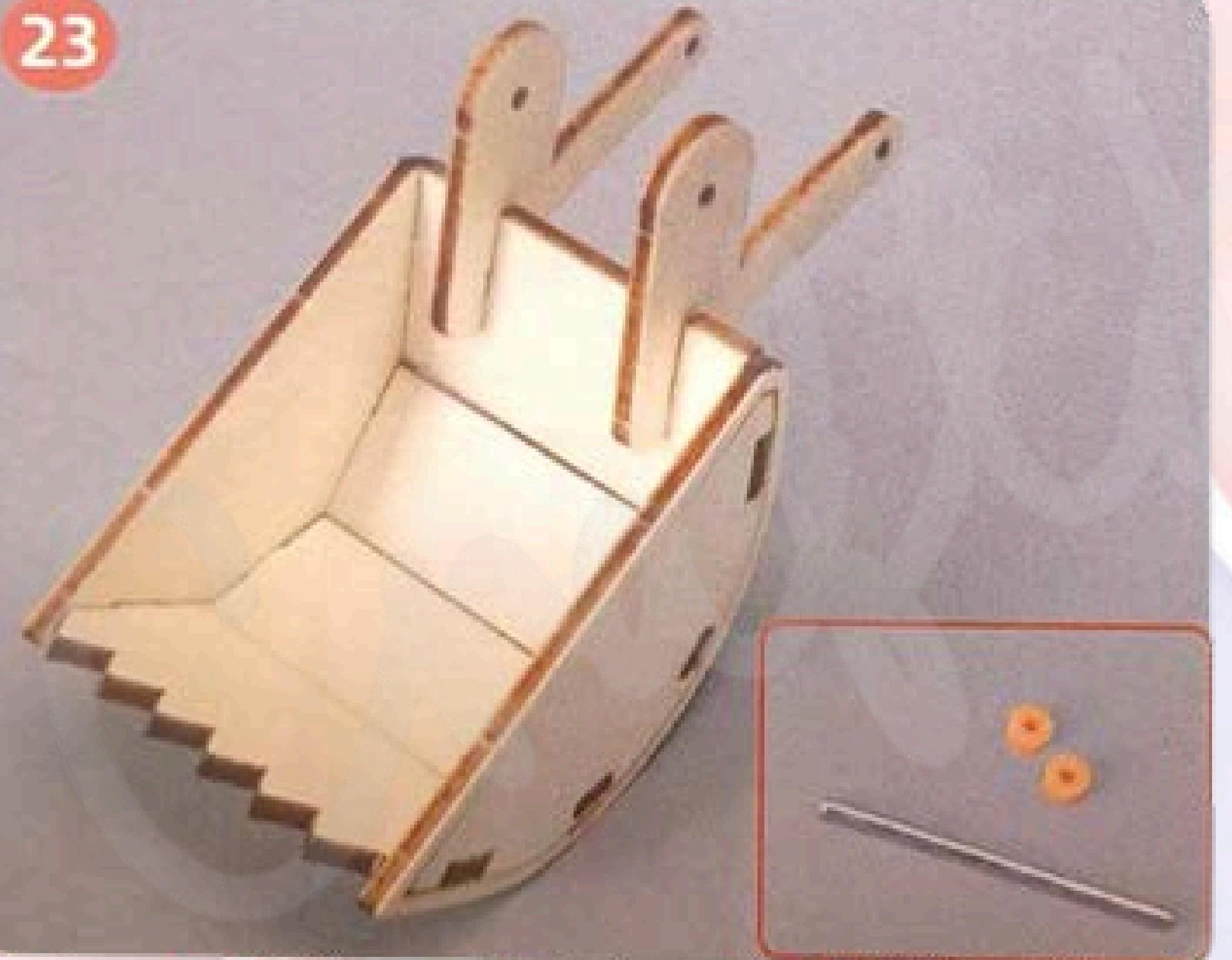
22



As shown in the picture, attach the second side panel to complete the excavator bucket assembly.

Next, find the parts shown from board No. 3.

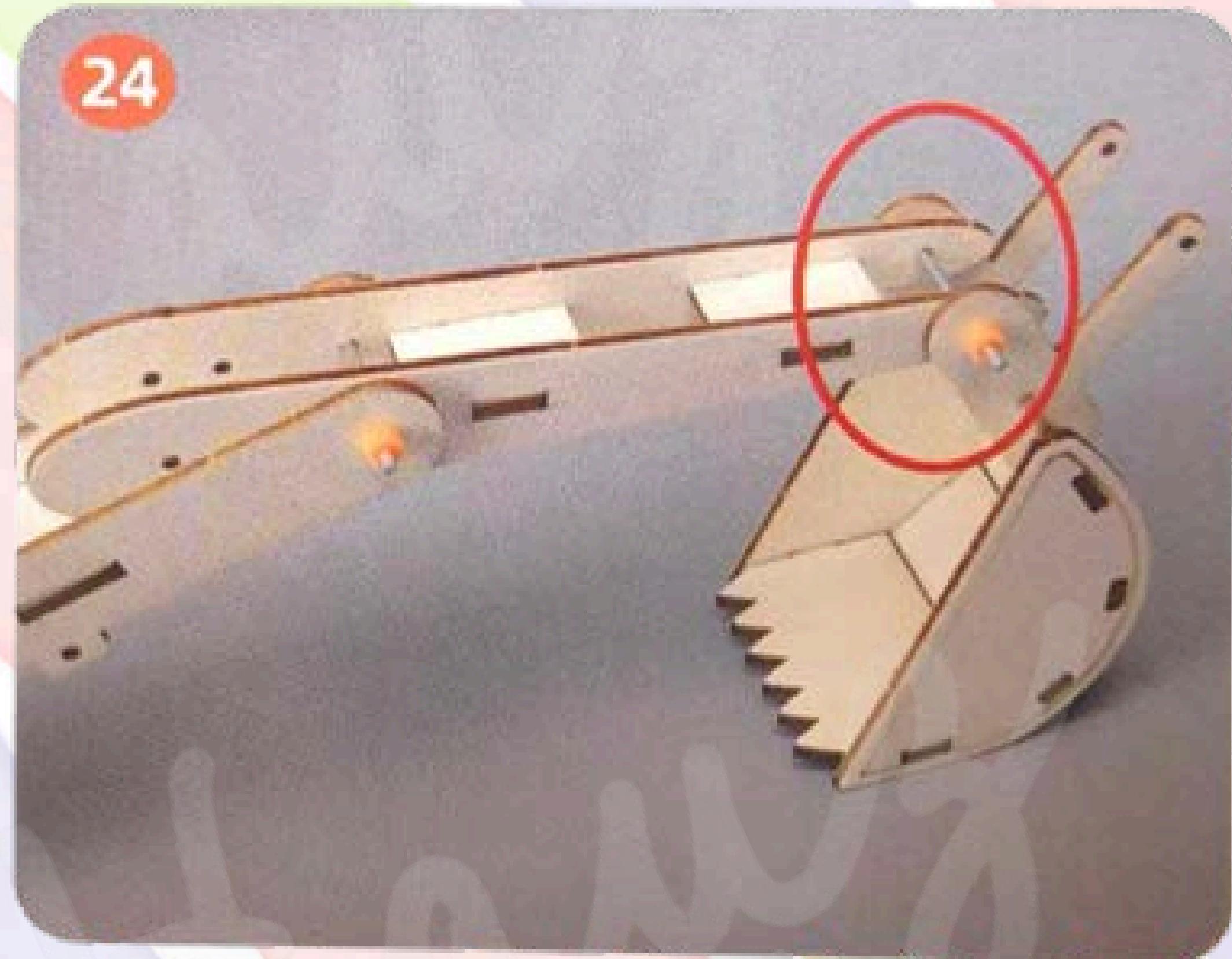
23



As shown in the picture, insert the two small boards into the slots on the excavator bucket.

Prepare one 40 mm rod and two rubber sleeves.

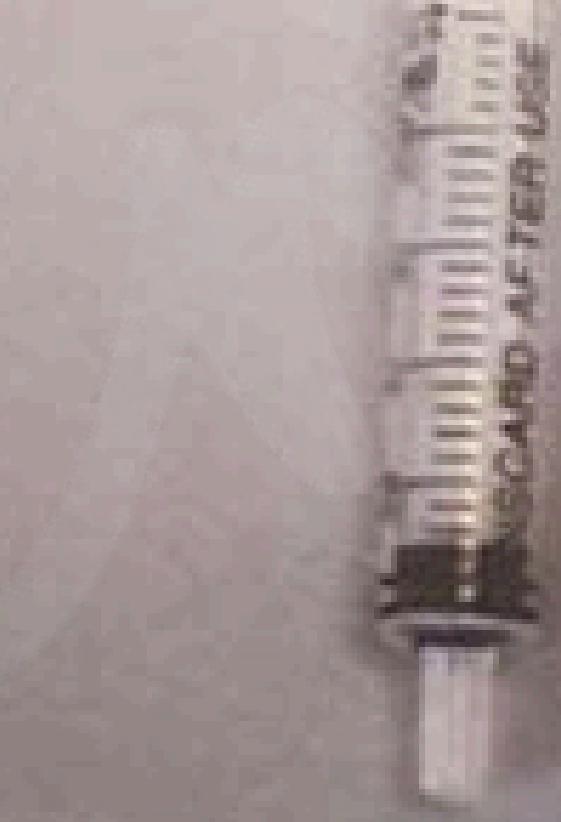
24



As shown in the picture, insert the 40mm rod through Support Frame No. 2 and the excavator bucket, then secure both sides with shaft sleeves.

25

□ 卡扣



As shown in the picture, find the wooden parts from board No. 1 and one small syringe.

26



Use the two small wooden pieces to support both sides of the syringe plunger (left image).

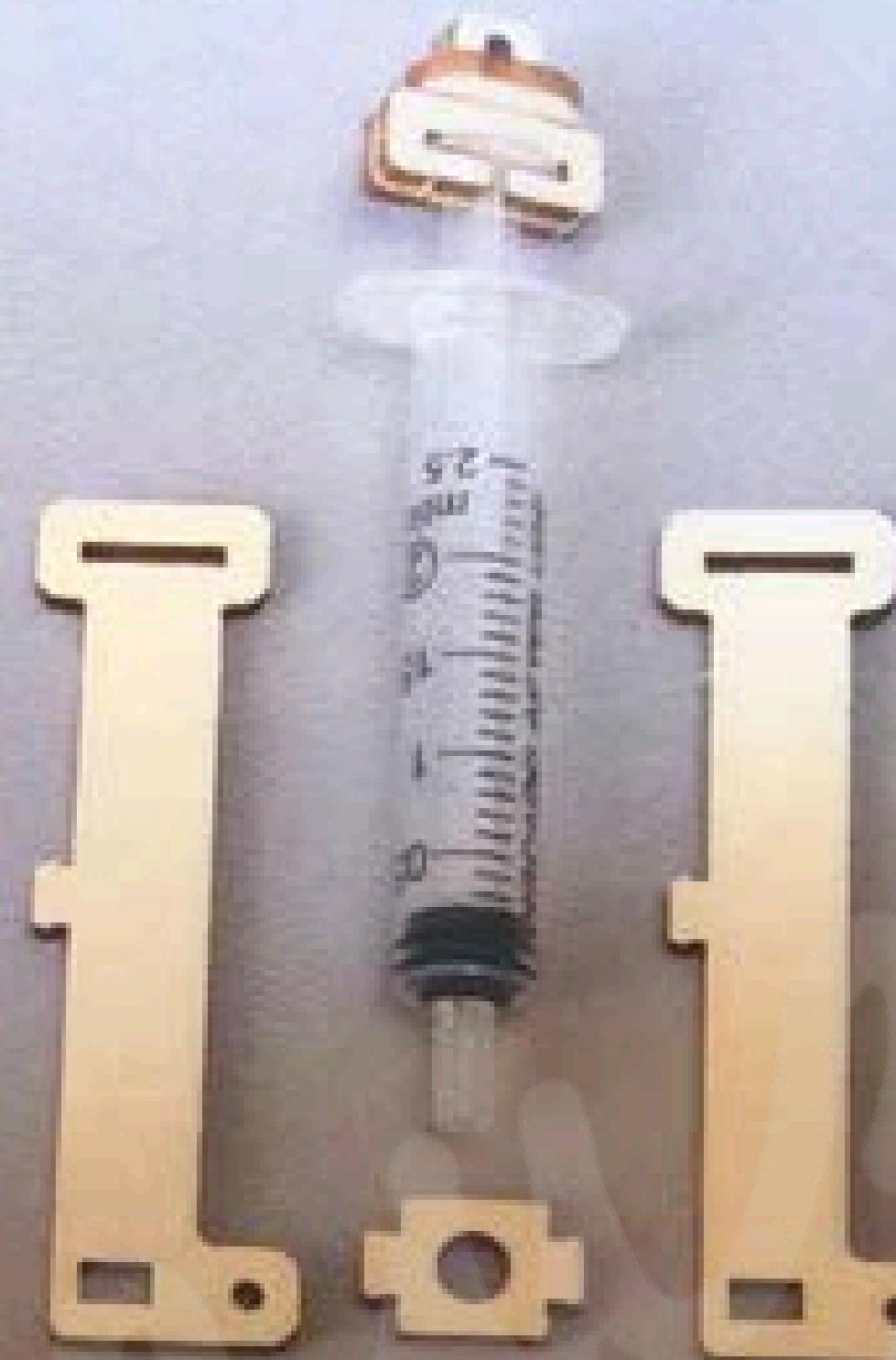
Then, use the clip to secure the two small boards from the top (right image).

27



As shown in the picture, assemble three sets following Steps 25 and 26.
(The parts can be found on boards No. 1 and No. 4, and the clips are on board No. 3.)

28



As shown in the picture, find the corresponding parts and the small syringe assembly from board No. 1.

29

凸槽同方向

两侧针筒头
放入卡槽



30



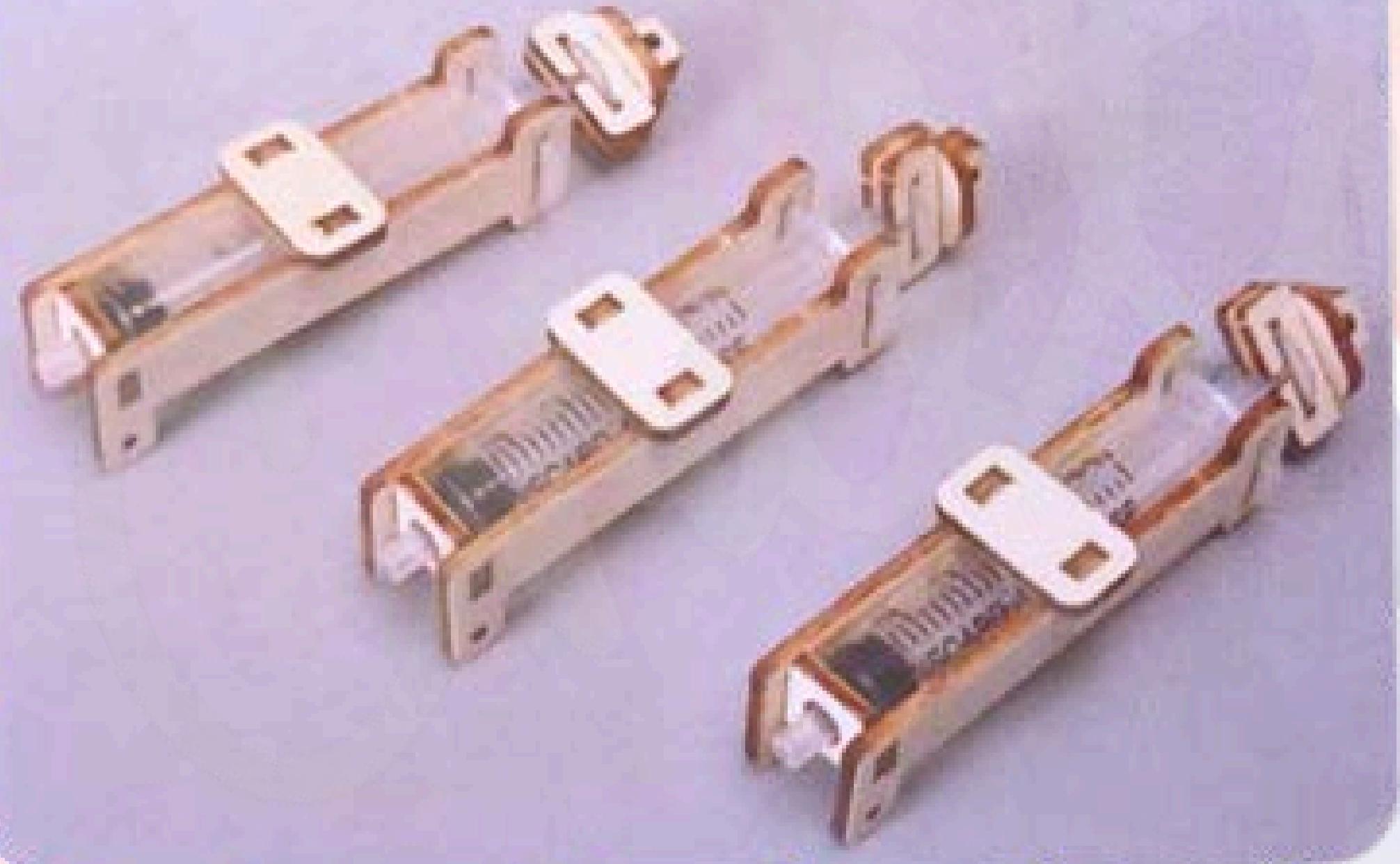
As shown in the picture, install and secure the syringe.

Make sure the grooves are facing the same direction, and place both ends of the syringe into the slots.

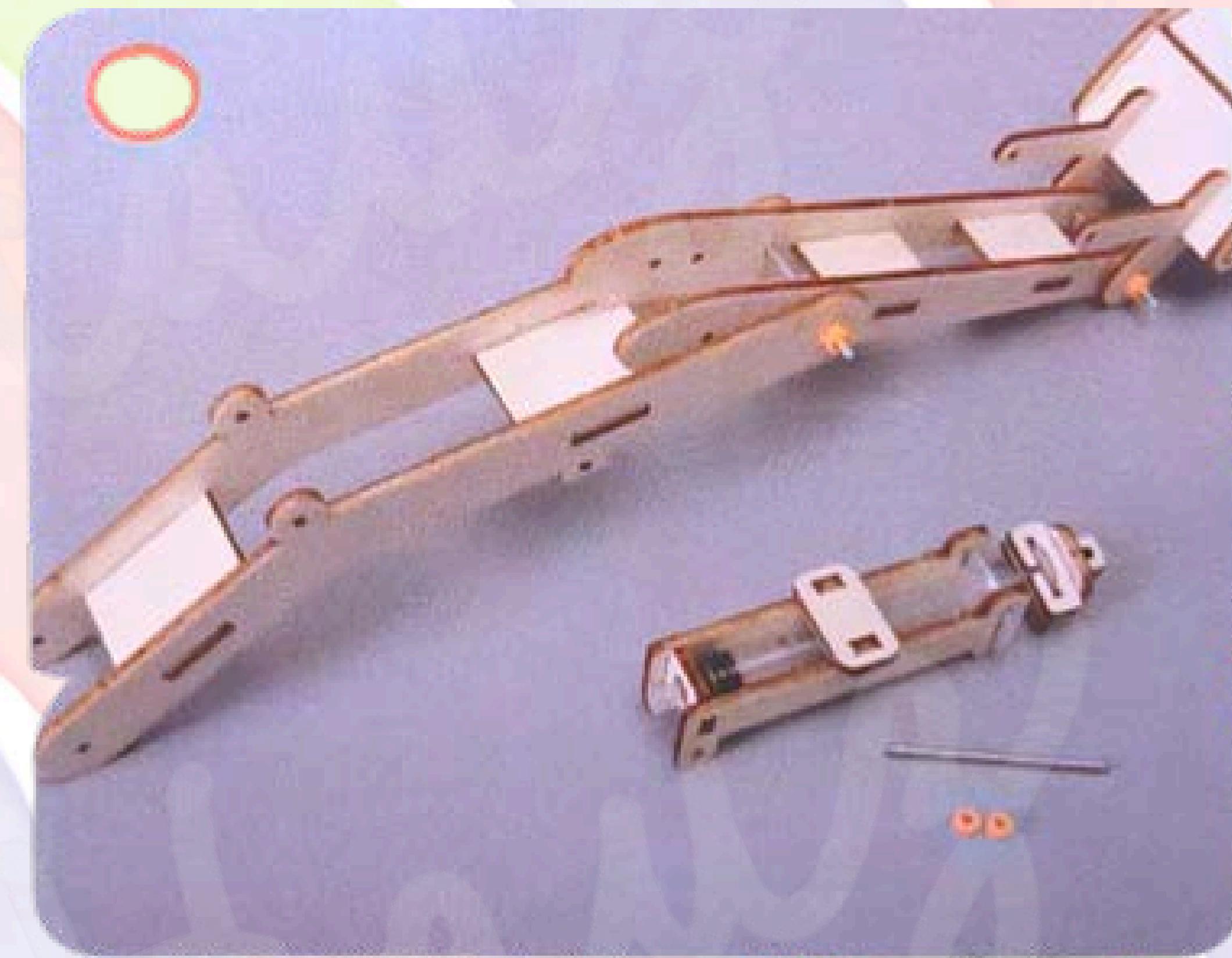
Find the parts from board No. 1.

Secure the syringe as shown in the picture.

31



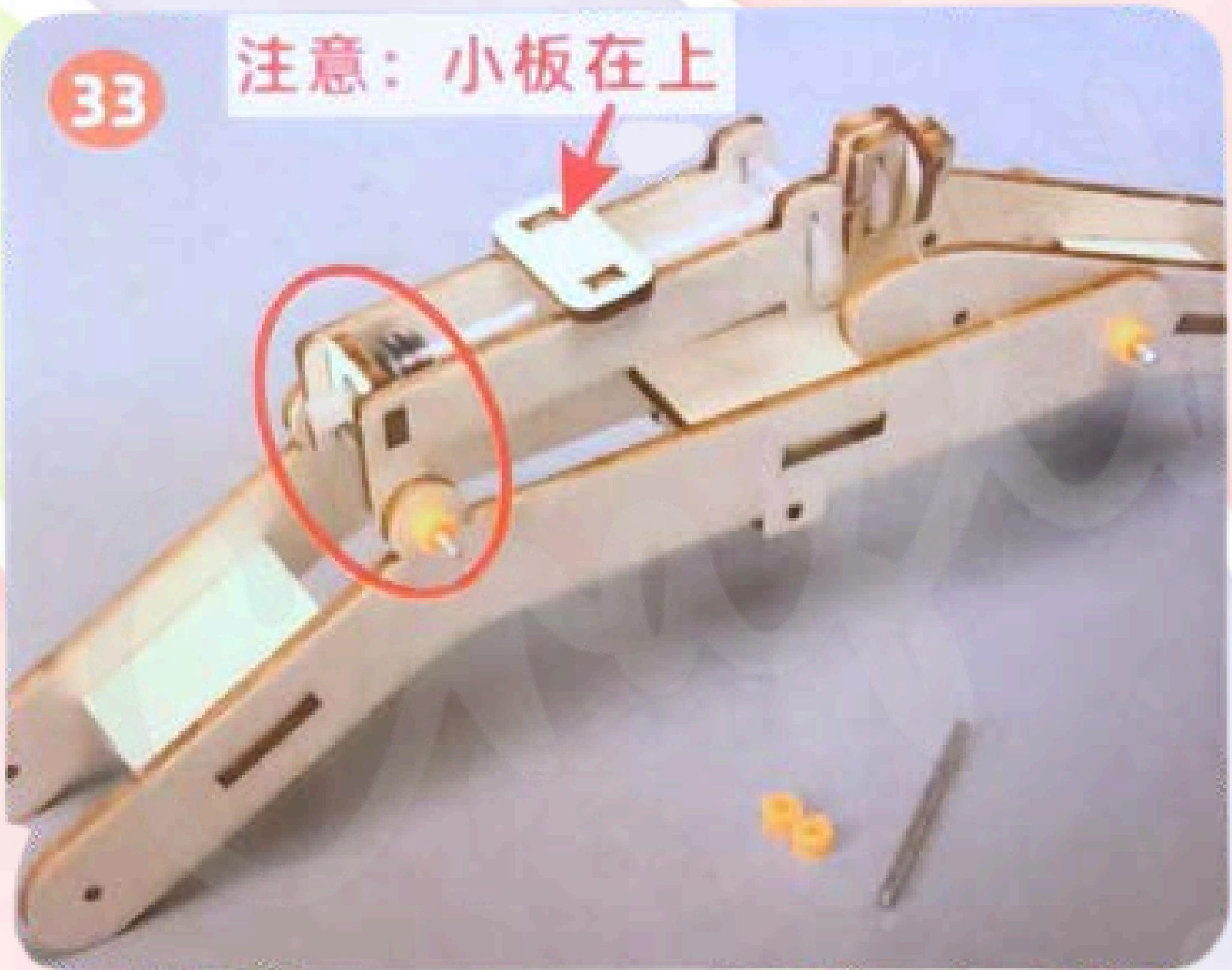
As shown in the picture, assemble three sets following Steps 28, 29, and 30. (All the parts are on board No. 1.)



As shown in the picture, prepare the assembled parts above, along with one 40 mm rod and two rubber sleeves.

33

注意：小板在上



As shown in the picture, use a 40 mm rod to connect the small syringe assembly and Support Frame No. 1.

Secure both sides with rubber sleeves. Prepare one 35 mm rod and two rubber sleeves.

Note: The small board should be on top.

34

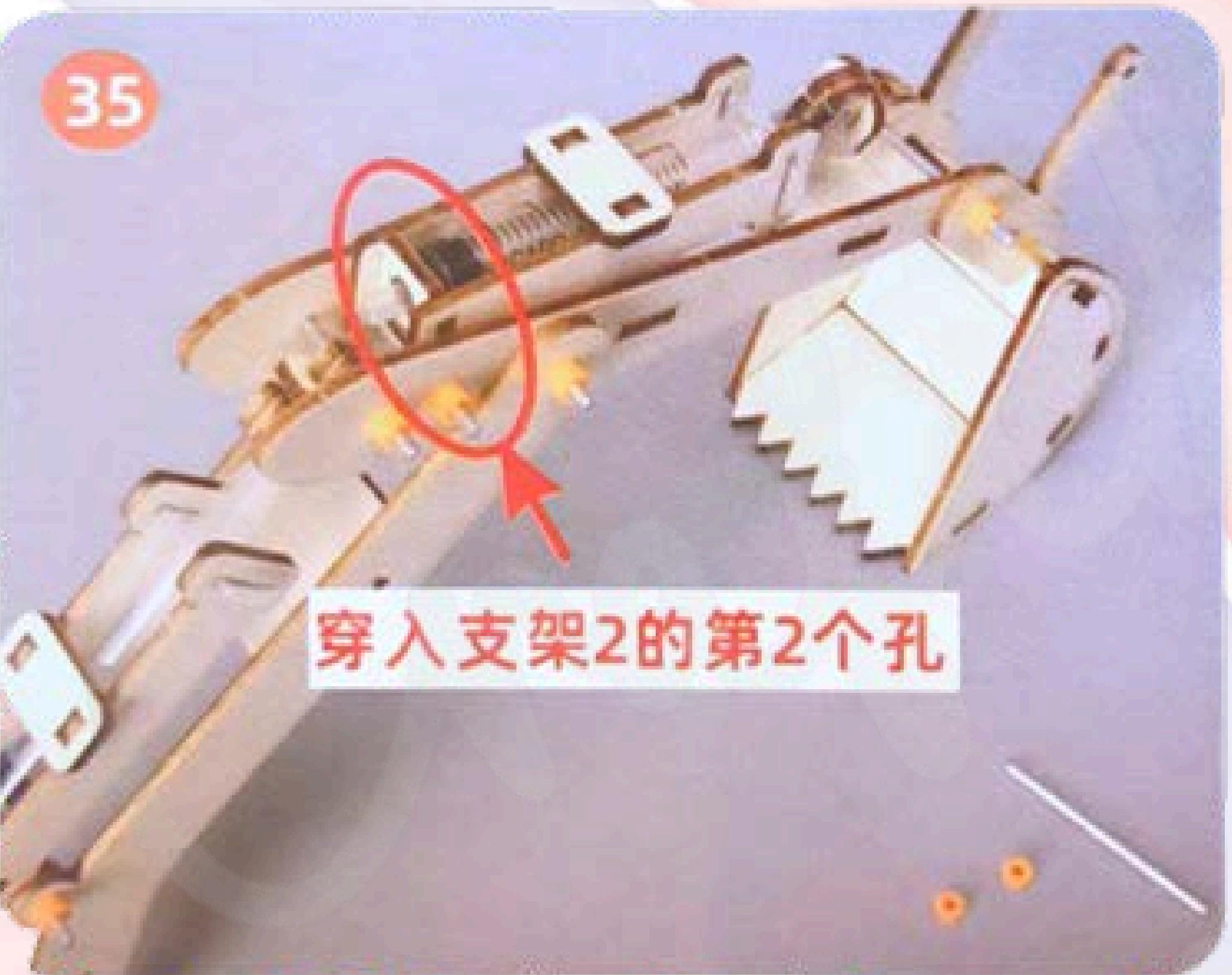
穿入支架2的第一个孔



As shown in the picture, insert the 35 mm rod through Support Frame No. 2 and the small syringe assembly.

Secure both sides with rubber sleeves. Prepare one small syringe assembly, one 35 mm rod and two rubber sleeves.

35



36



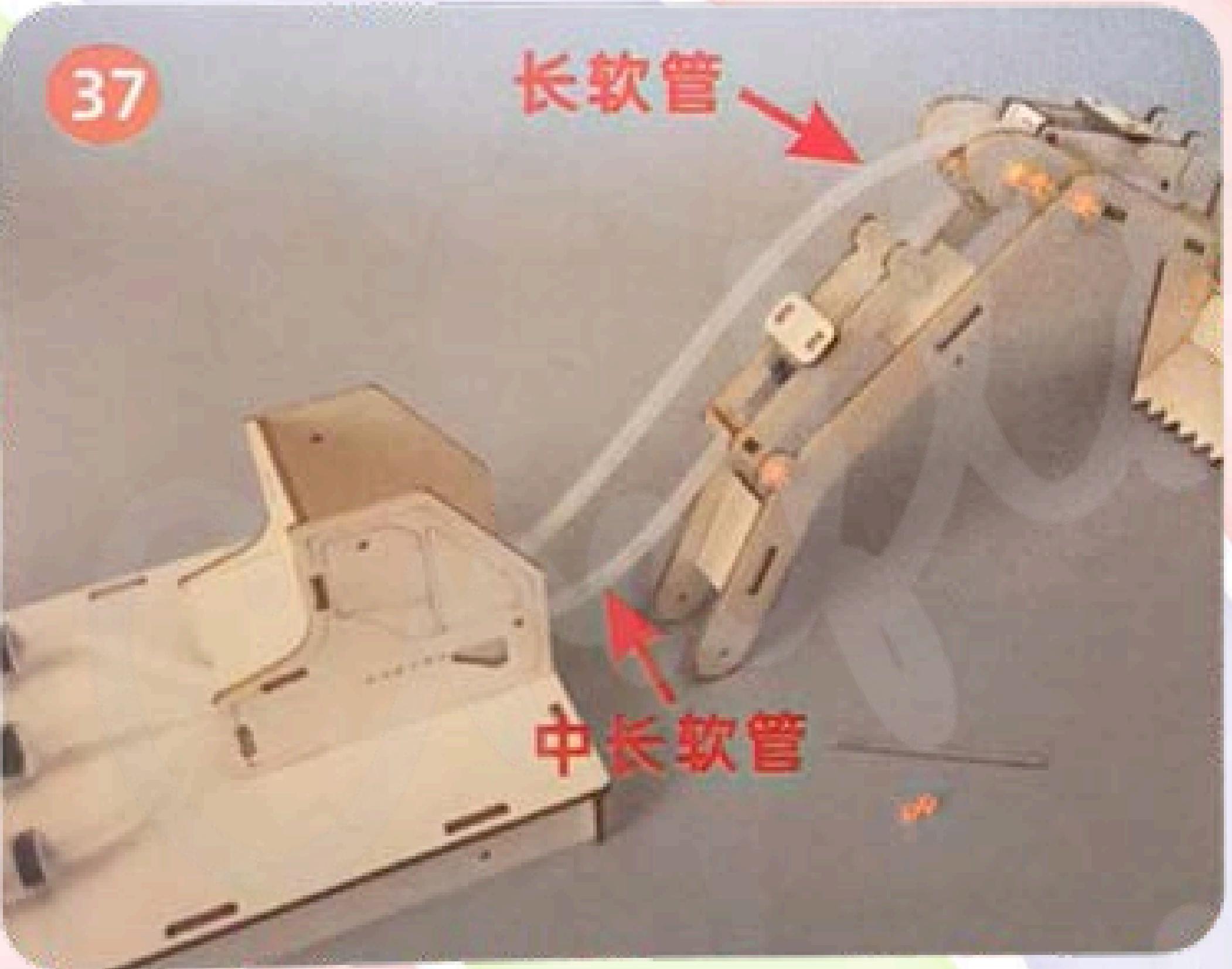
As shown in the picture, insert the 35 mm rod through the small syringe assembly and Support Frame No. 2 (second hole). Secure both sides with rubber sleeves. Prepare one 40 mm rod and two rubber sleeves.

As shown in the picture, insert the 40 mm rod through the bucket assembly and the small syringe push rod. Secure both sides with rubber sleeves. The push rod can move back and forth to extend and retract.

37

木软管

中木软管

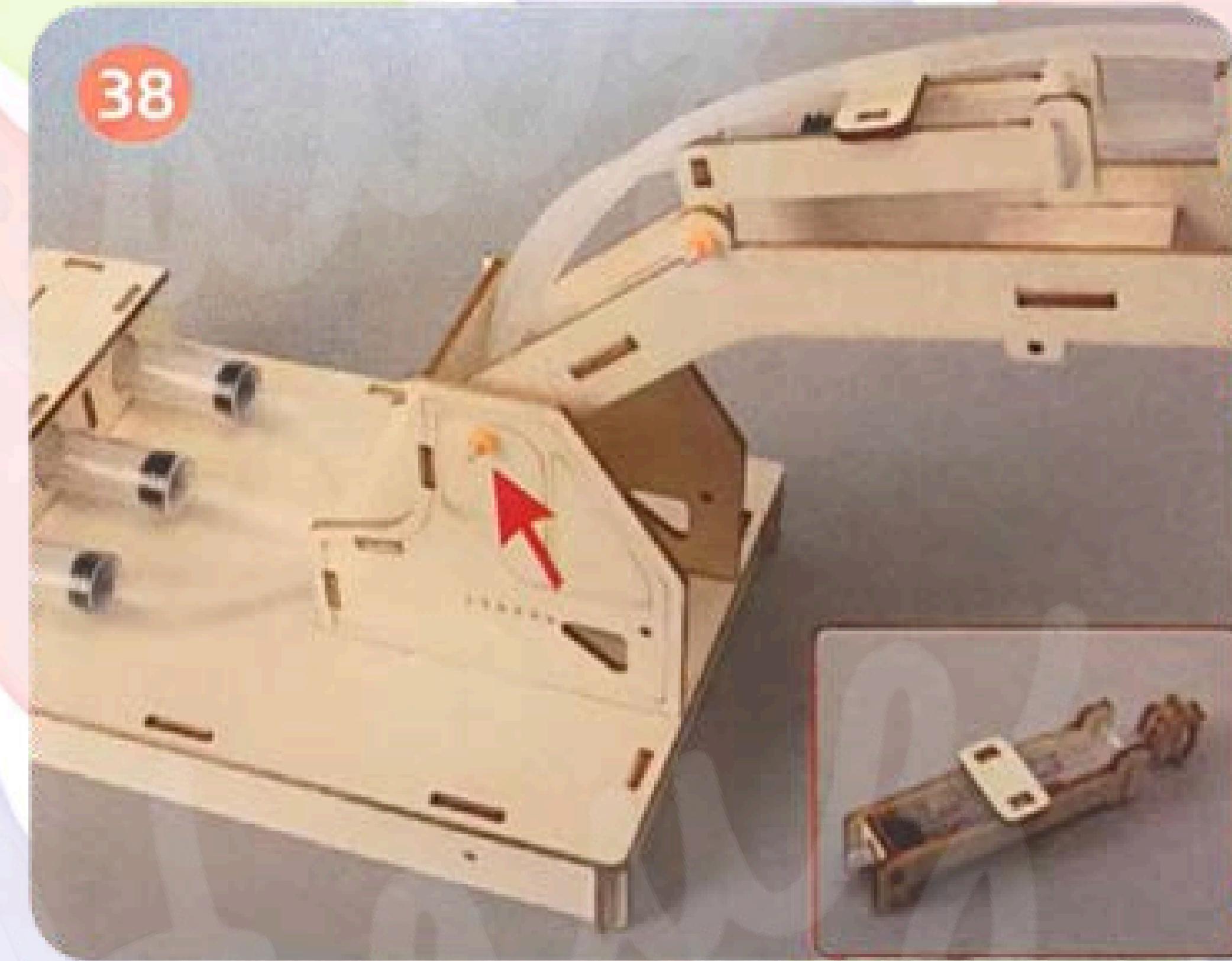


As shown in the picture, attach the tube of different lengths (from Step 15) to the small syringe heads.

Prepare one 55 mm rod and two rubber sleeves.

The longer tube on top, medium-length tube at the bottom.

38



As shown in the picture, use the 55 mm shaft to fix Support Frame No. 1 onto the base.

Secure both sides with shaft sleeves, and prepare the small syringe assembly.

39



As shown in the picture, attach the short tube to the syringe head.

Prepare one 40 mm rod and two rubber sleeves.

40



As shown in the picture, use the 40 mm rod to secure the small syringe assembly to the underside of Support Frame No. 1.

Fix both sides with rubber sleeves.

Prepare one 55 mm rod and two rubber sleeves.

Pay attention to the direction indicated in the image.

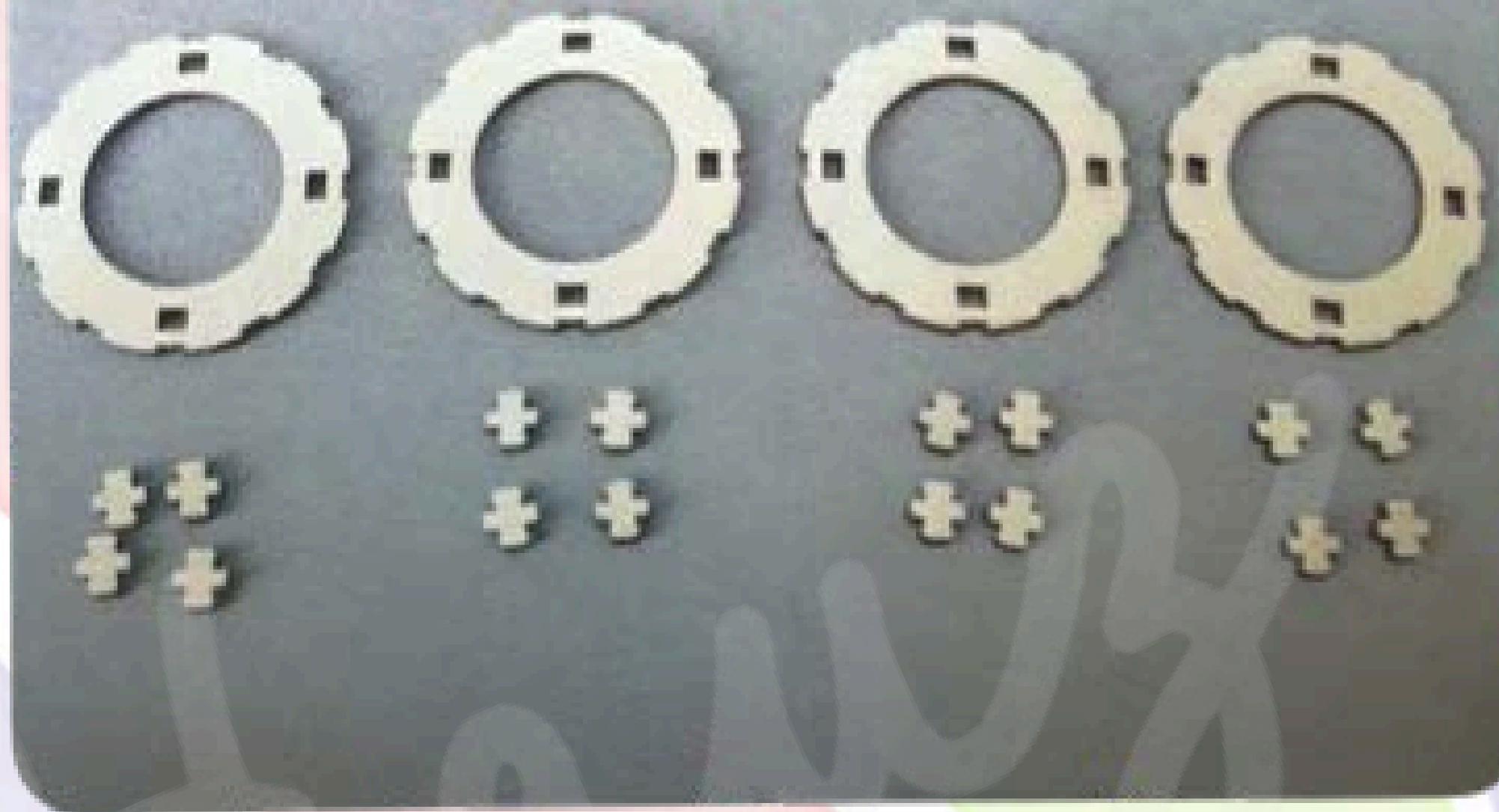
41



As shown in the picture, use a 55 mm rod to secure the small syringe assembly onto the base. Fix both sides with rubber sleeves.

42

注意：4个正反面都不带线条图案
请勿拿错



Find the parts shown above from board No. 4.

Note: The front and back of the four round pieces look similar — the correct side does not have engraved lines. Be careful not to take the wrong side.

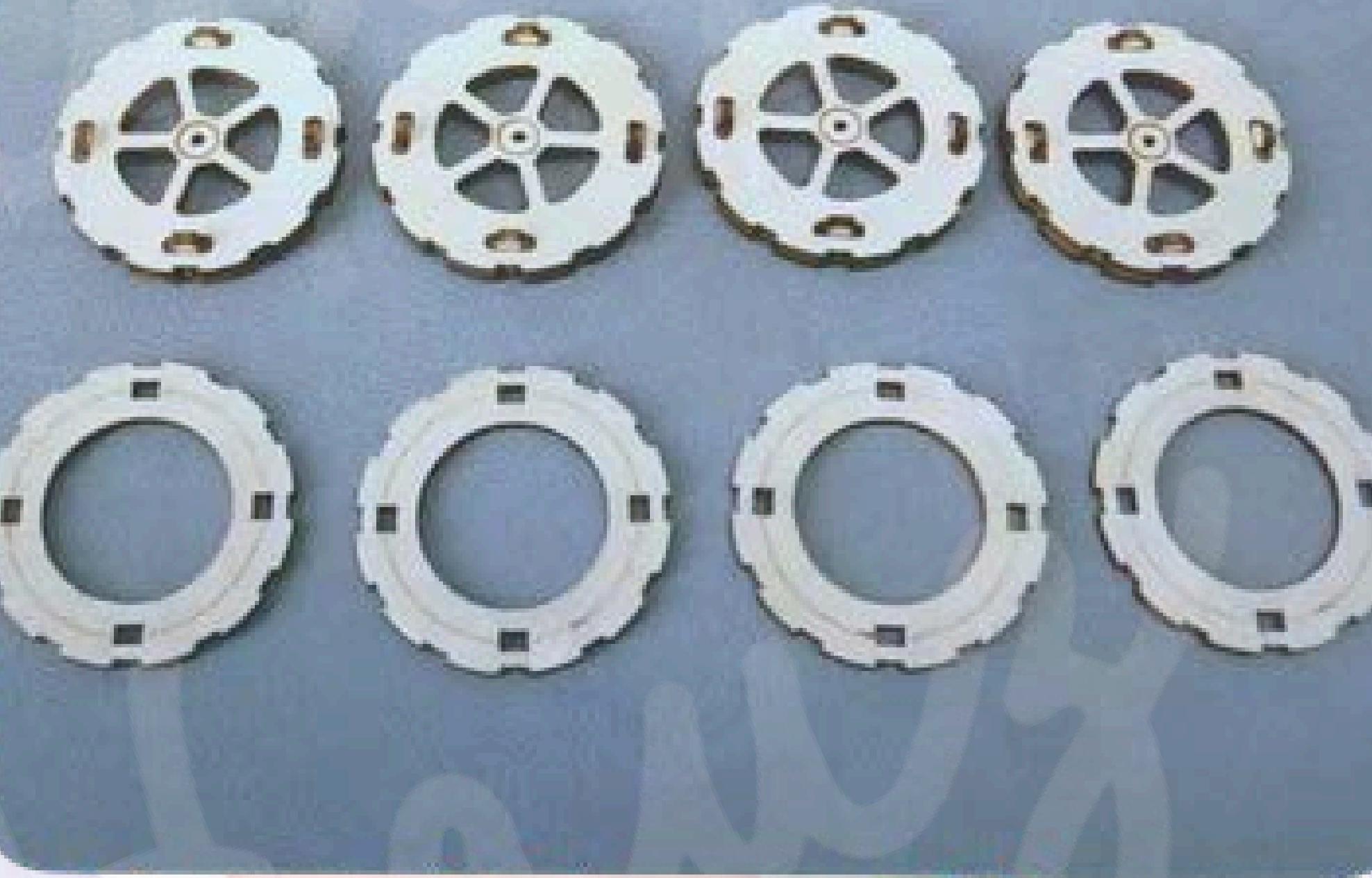
43



将宽头插入卡槽



44



As shown in the picture, insert four small wooden pieces into each round part.

Next, find the required parts from boards No. 1 and No. 4.

(Insert the wider end into the slot as indicated.)

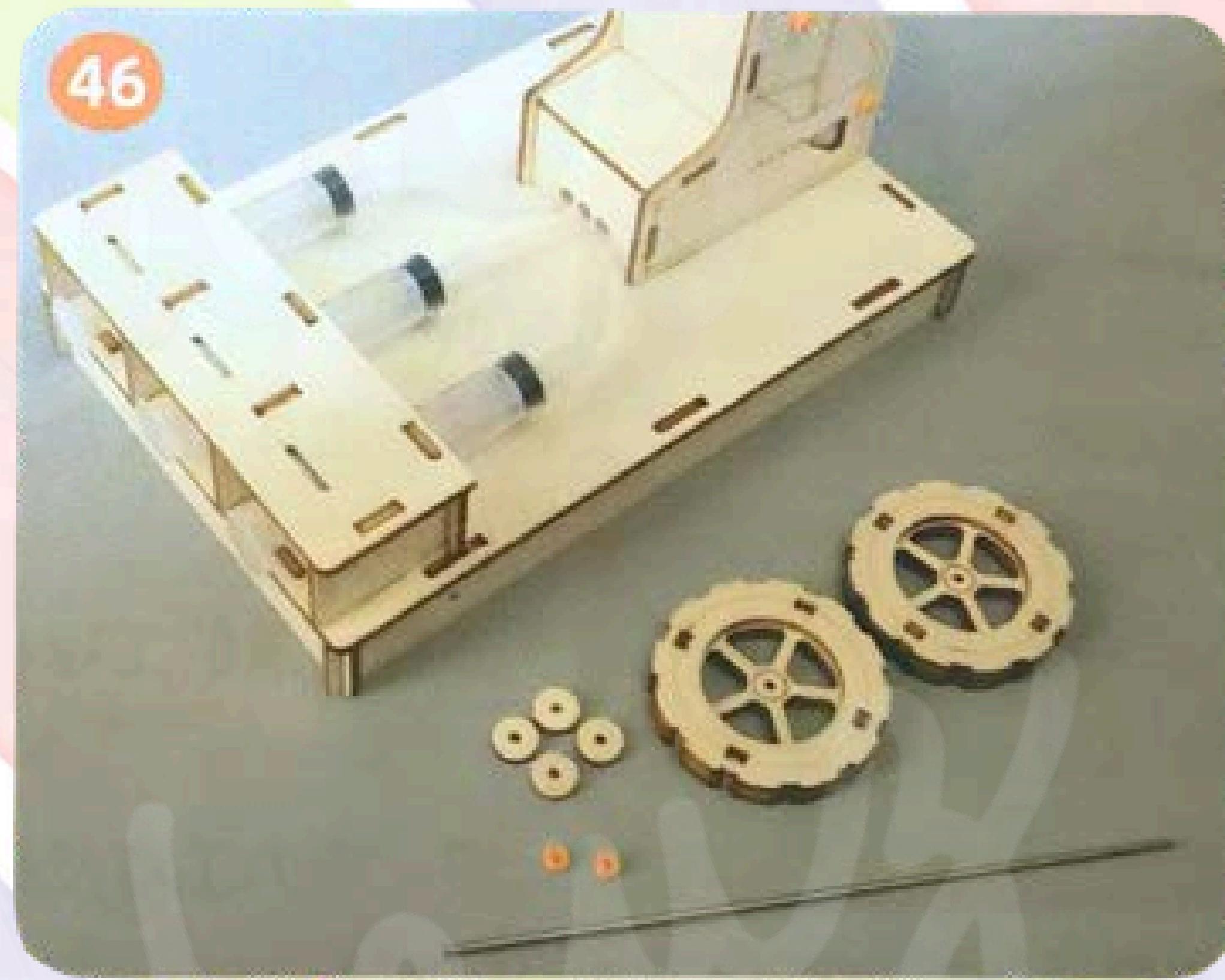
As shown in the picture, fix the parts together.

Then, find the corresponding parts from board No. 4.

45



46

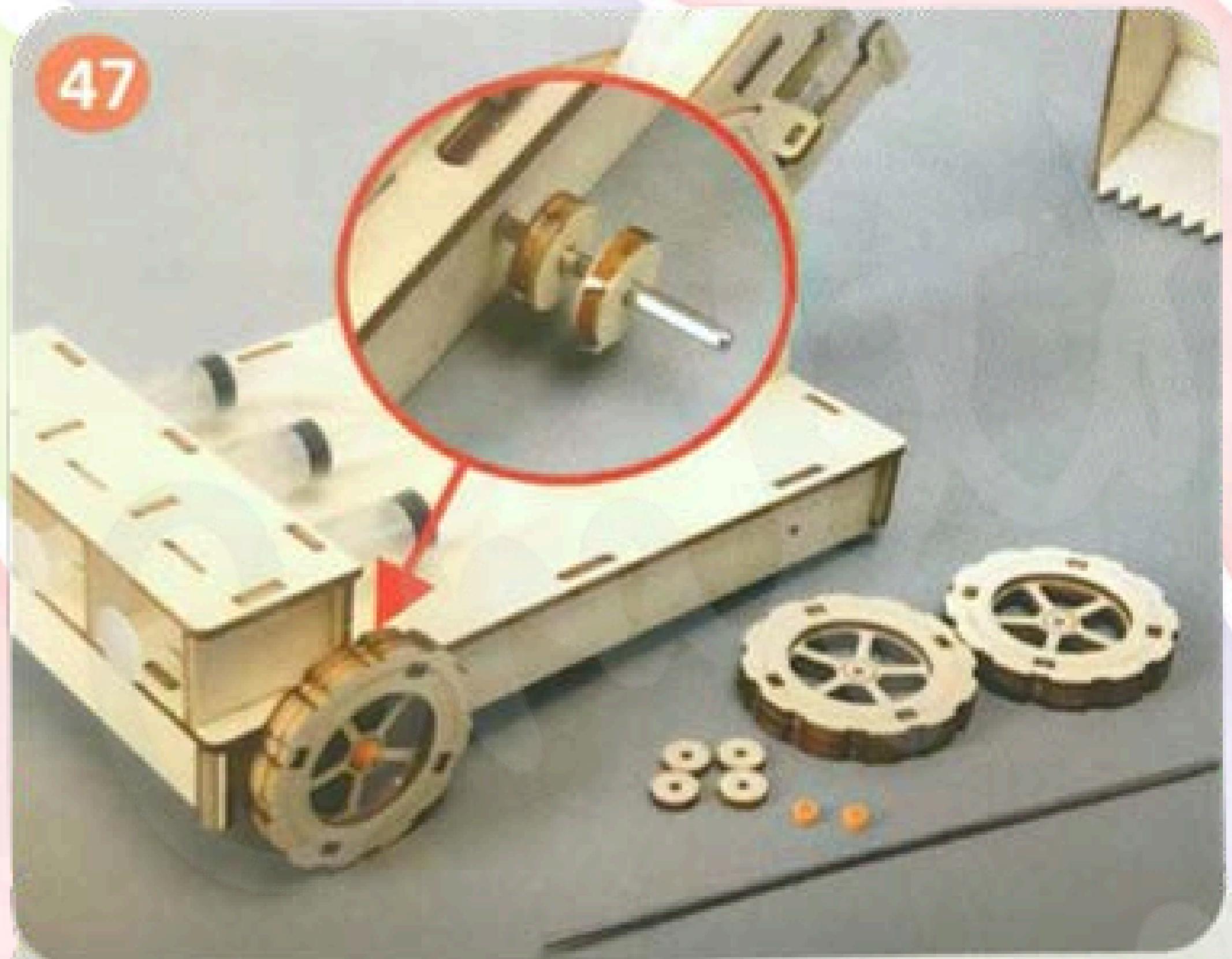


As shown in the picture, continue inserting the parts to complete the assembly of the wooden wheels.

As shown in the picture, prepare the assembled parts above, one 150 mm rod, two rubber sleeves, and the wheels.

Find the small round parts from board No. 4.

47

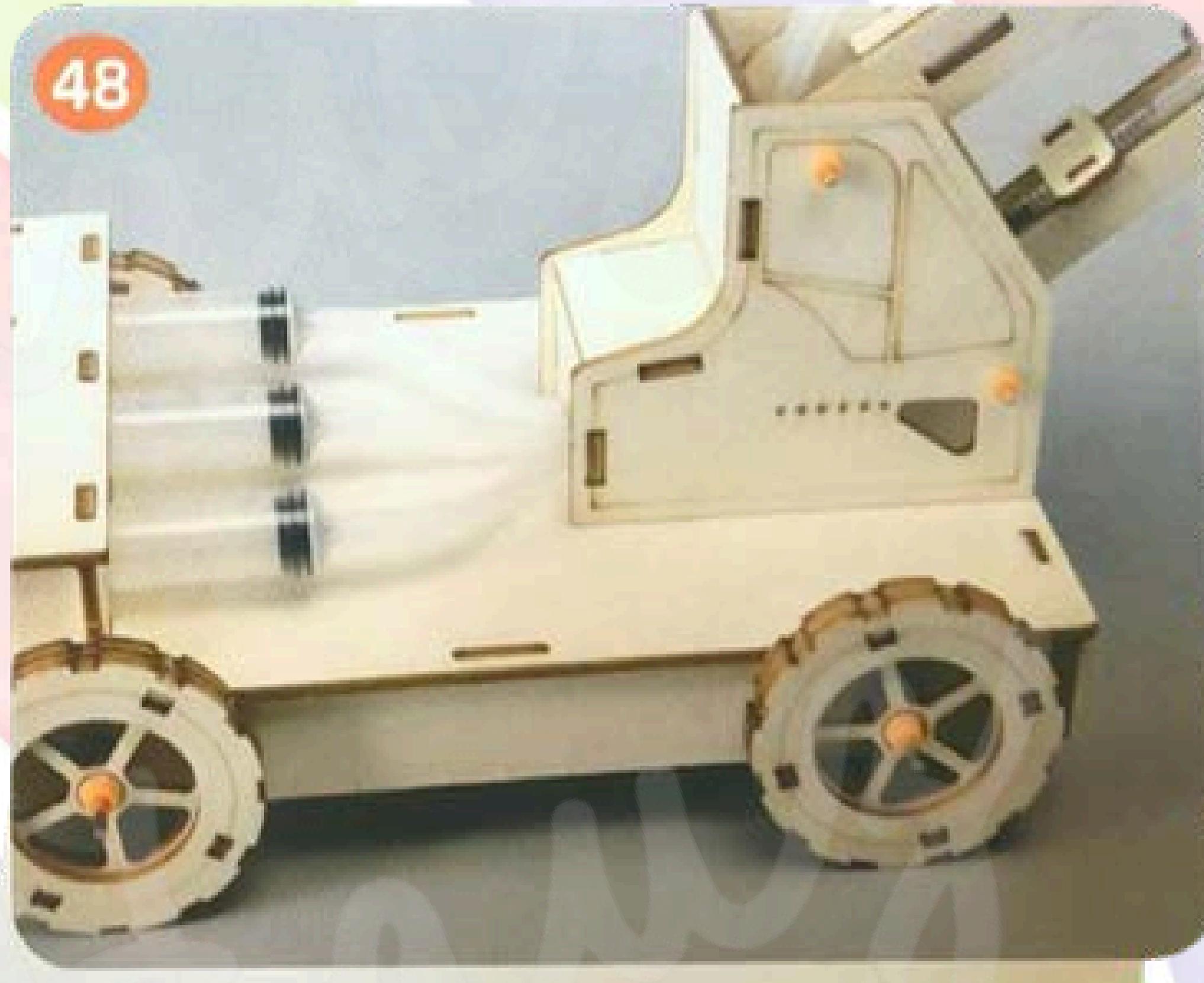


As shown in the picture, insert the 150 mm rod into the base.

Place two small round pieces on each side, then attach the wheels and secure them with shaft sleeves.

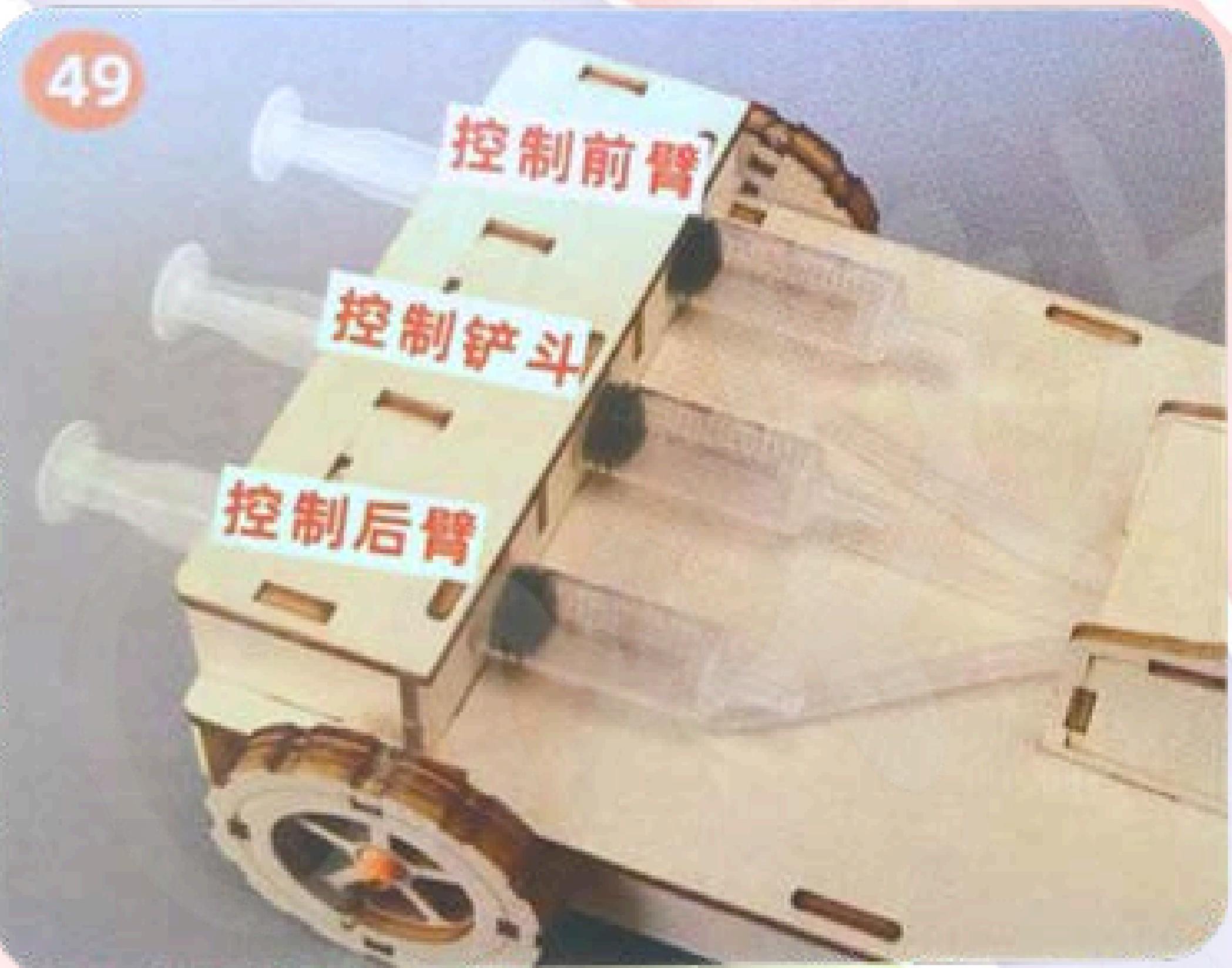
Prepare four small round pieces, two rubber sleeves, and one 150 mm rod.

48



As shown in the picture, follow the same procedure as in Step 47 to install the parts and complete the assembly of the front and rear wheels of the hydraulic excavator.

49



50



How to fill the syringes with water:

First, detach the soft tubes. Remove the syringes and fill them completely with water. Reattach the tubes after expelling all the air inside them.

Push and pull the syringes to start your experiment!

Finished Product Display