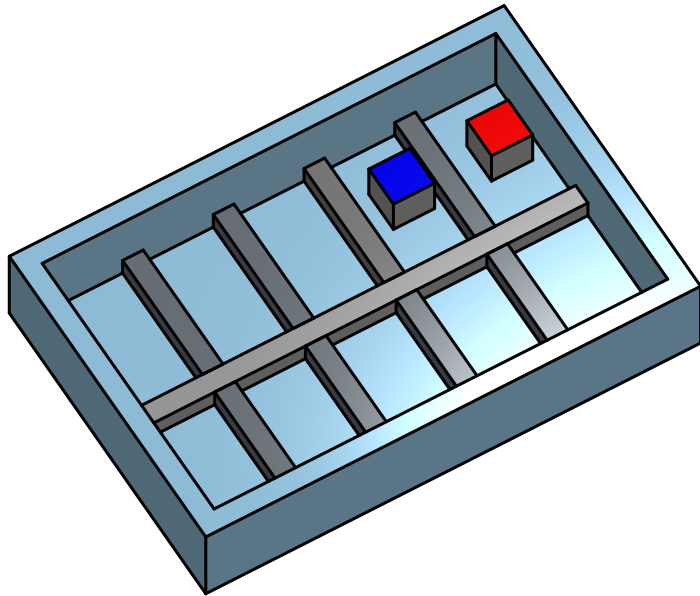


# Build your own ten-frame!

(Adult supervision recommended)

A ten-frame is a drawing or board you can use to visualize numbers and model addition and subtraction for small numbers. It's sort of a simplified abacus. Your child's kindergarten or pre-school teacher can tell you more about this.



Build a ten-frame with this enclosed kit. Your children can help. The kit contains:

- One pre-made 4x6 inch wood frame
- Two  $\frac{1}{4}$ -inch wood dowels, scored with locations to snap (It's soft balsa – you can snap by hand.)
- One paper template to help show where to place the dowel pieces in the frame (step 2)
- Sandpaper
- 4 Furniture pads
- 10  $\frac{1}{2}$ -inch wood blocks for counting, addition, and subtraction

If you're downloading these instructions from the web, you can get similar materials at Michaels, Ace Hardware, Amazon.com, or Hobby Lobby for about \$5.

You will also need:

- Wood glue or all-purpose white glue
- Scissors



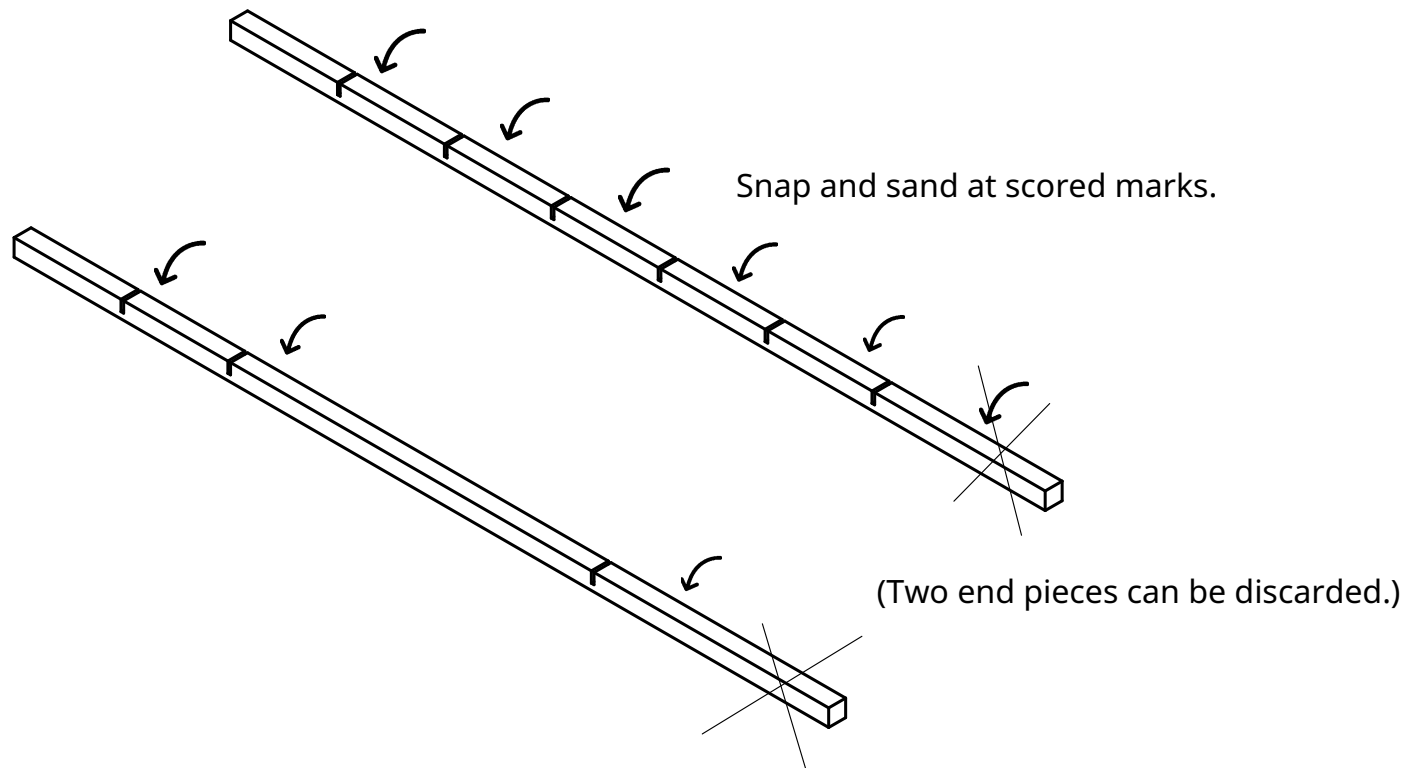
[stevenvictor.net/tenframe](http://stevenvictor.net/tenframe)  
Created in Onshape [www.onshape.com](http://www.onshape.com)  
Some icons from [flaticon.com](http://flaticon.com)  
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# Step 1

Snap the wooden dowels at each scored mark. You will end up with:

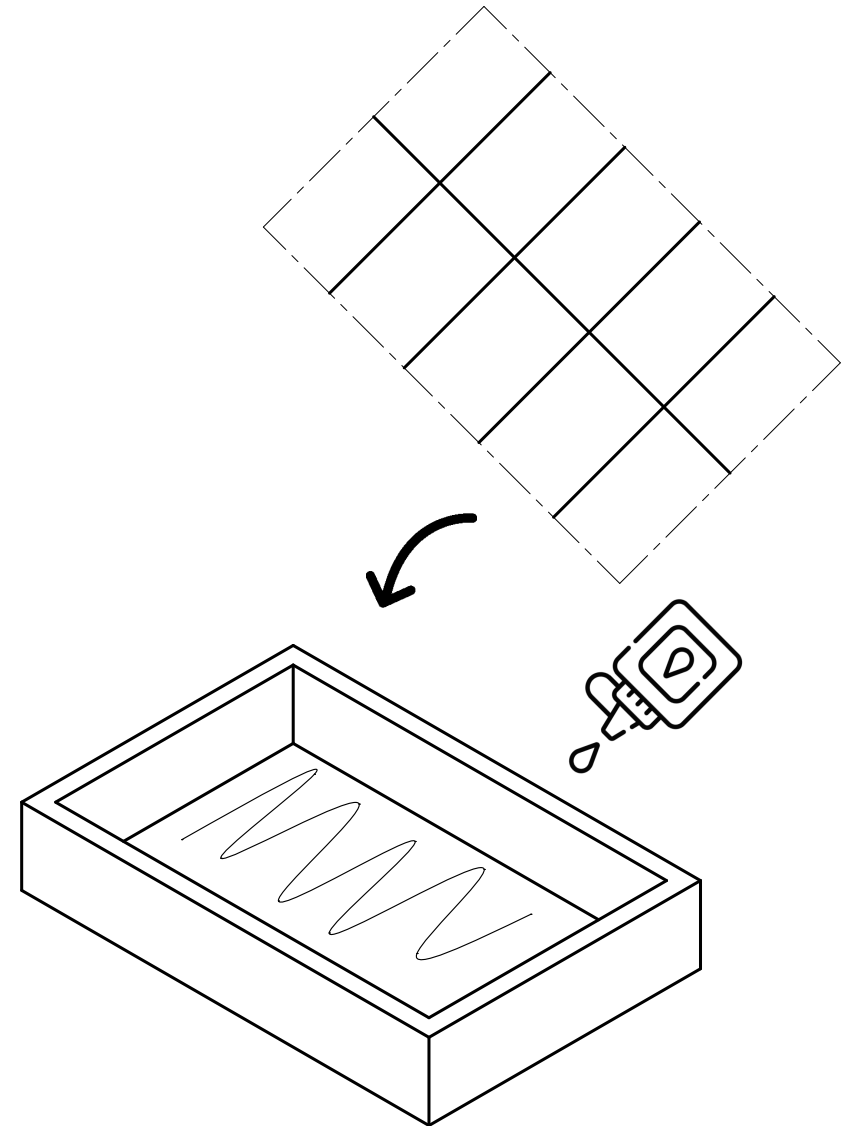
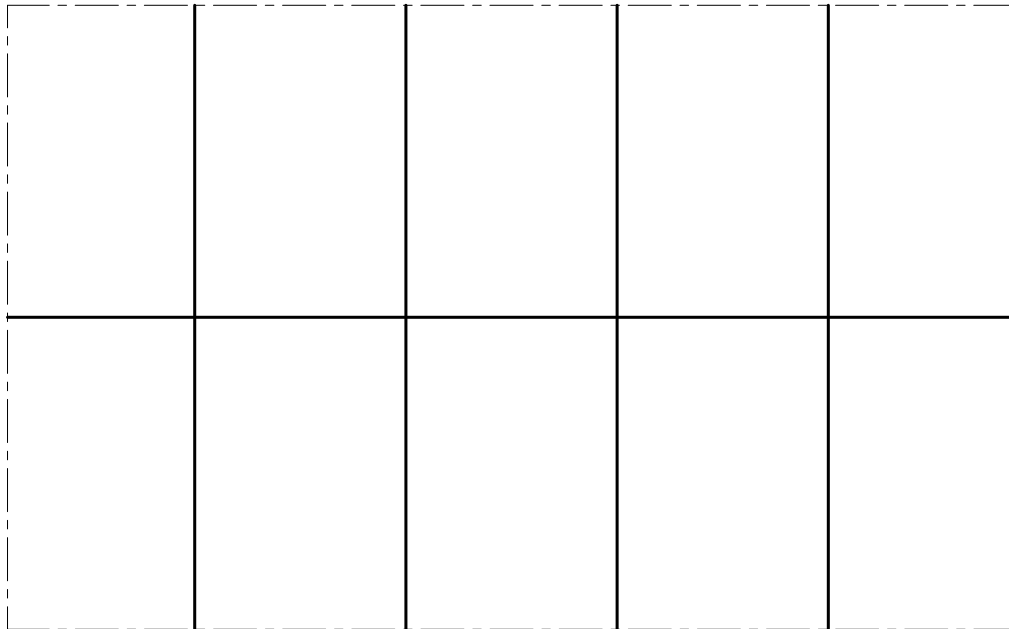
- 1 long piece 13.5 cm (5 1/16")
- 8 short pieces, 4 cm (1 9/16" ) each

These measurements may be a bit long, but after you sand down the rough edges, they will fit into the frame. There are dowel cutting templates included if your kit does not have them pre-scored.



## Step 2

Cut out and glue this paper template into the base of the frame as shown. The dowel pieces will go along the template lines in the next step.

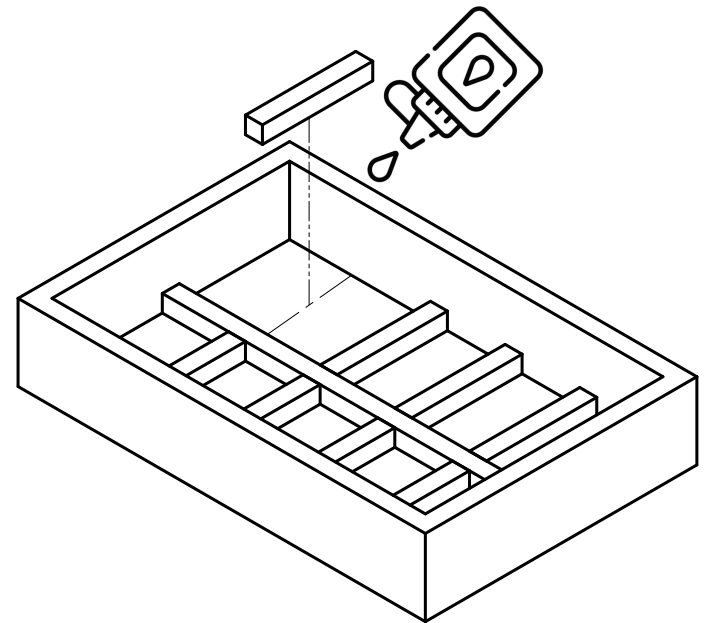
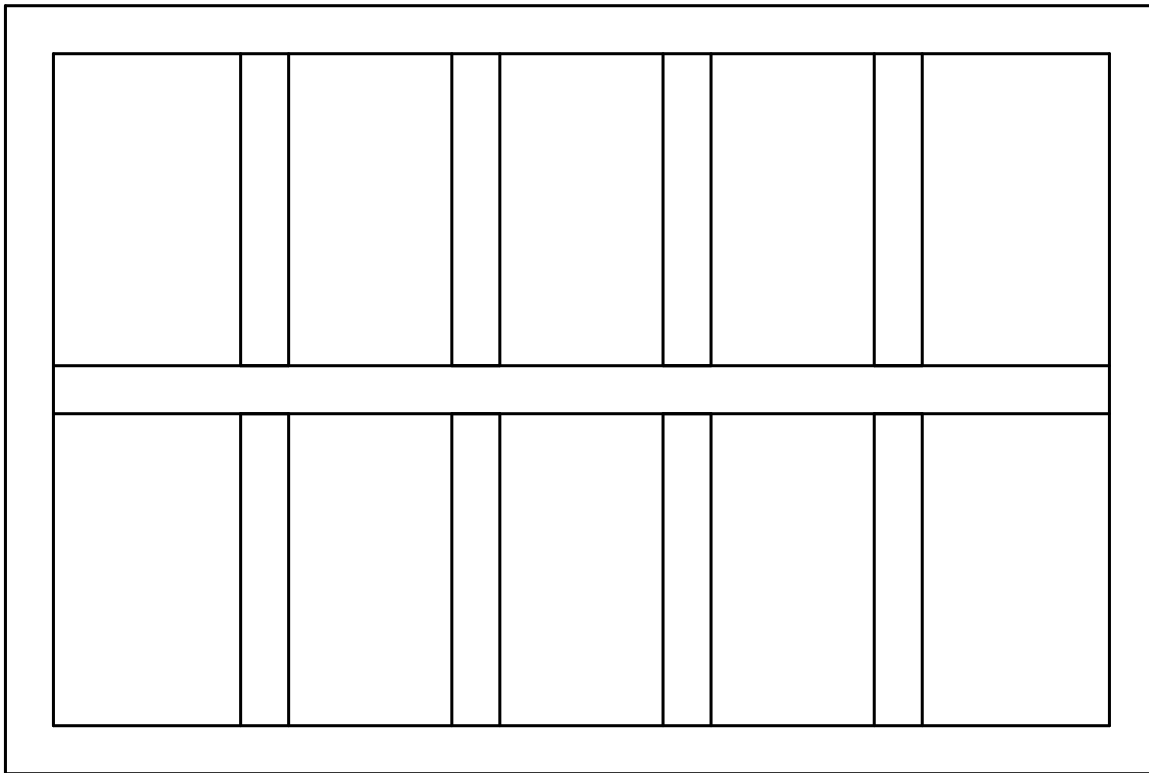


## Step 3

Test-fit the dowels into the frame and sand as necessary, using the paper template as a guide.

Glue the dowels into the frame as shown (on top of the paper).

Set aside to dry.

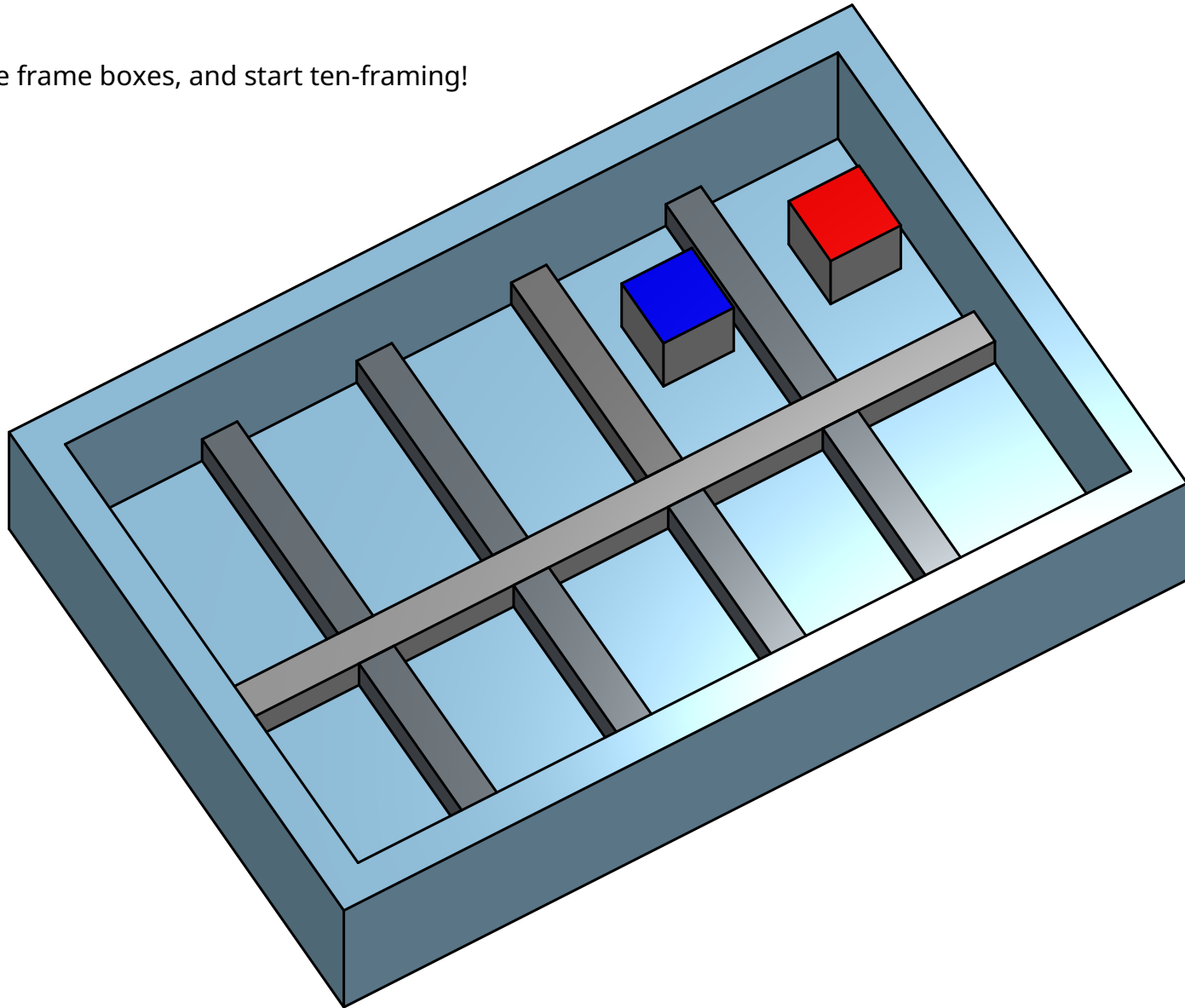


## Step 4

Take the brass hanger off the back of the frame and add stick-on furniture pads to avoid scratching tables and floors.

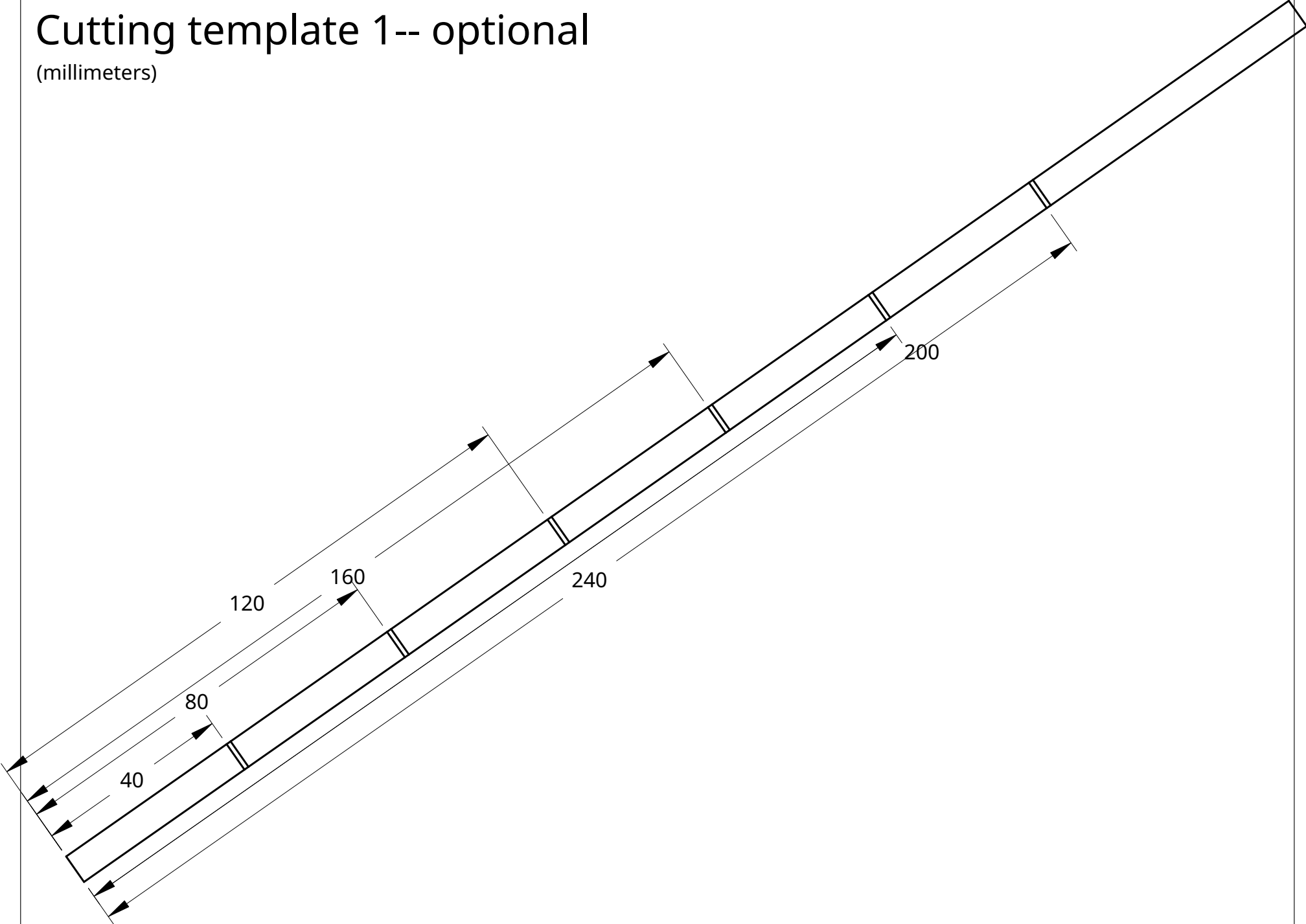
Optional: Paint the ten cubes one color on one face and a contrasting color on the opposite face.

Place the cubes in the frame boxes, and start ten-framing!



# Cutting template 1-- optional

(millimeters)



# Cutting template 2-- optional

(millimeters)

