# Step 1 – Determine Design and Size

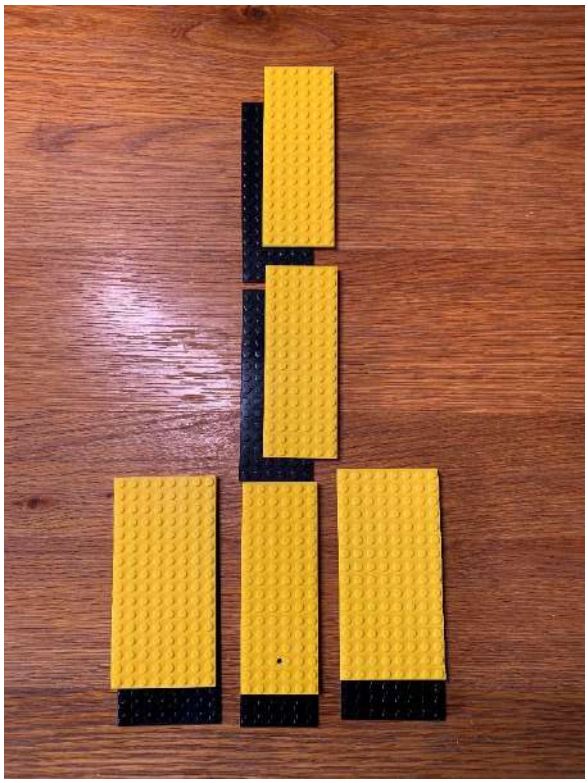
Determine the color/design and size of your violin.

In general, three types of plates in two colors (primary and secondary color) are included, therefore you need to determine the color/design of your violin first.

Put the plates as seen in example below so you get an idea of the end result. Black and yellow combination is used as example, your package may be in other color combination. The options are as follows but not limited to,

## Pure black

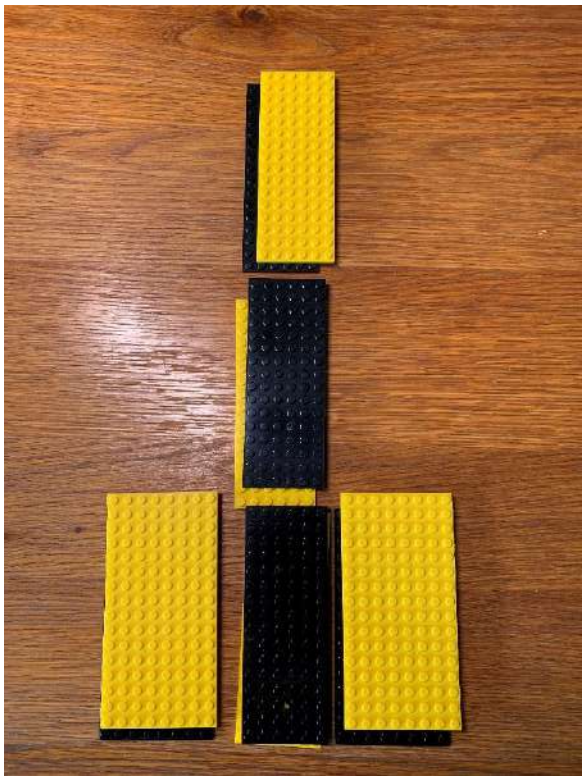
## Pure yellow



# Step 1 – Violin Design

Determin the colour/design and size of your violin

## Yellow as primary colour



There may be other colour combinations, you can even use your own lego pieces as long as it is the same spec as the corresponding one in this document.

# Step 1 – Violin Size

With the same set of build blocks and parts, you can build different sizes of violin, namely 1/2, 3/4 and 4/4.

You can refer to this chart for your violin size.


| Size | 4/4 full size | 7/8 | 3/4 | 1/2 | 1/4 | 1/8 | 1/10 | 1/16 | 1/32 |
|---|---|---|---|---|---|---|---|---|---|
| Age | 11+ and adults | 10+ and adults | 9-11 | 7-9 | 6-7 | 5-6 | 4-5 | 5 years and under | |
| Arm length CM (neck to mid-palm) | 58,5 | 57,5 | 56 | 51 | 47 | 42 | 38 | 35,5 | 35 and under |
| Arm length INCH | 23 | 22 | 22 | 20 | 18 | 16 | 15 | 14 | 14 and under |
| Total violin length CM | 59 | 57 | 55 | 52 | 48 | 43 | 39 | 36 | 33 |
| Total violin length INCH | 23 | 22 | 22 | 20 | 19 | 17 | 15 | 14 | 13 |
| Violin body length CM | 36 | 34,5 | 33 | 30 | 28 | 25 | 23 | 21 | 18 |
| Violin body length INCH | 14 | 13,5 | 13 | 12 | 11 | 10 | 9 | 8 | 7 |

**For demonstration purposes, we will build 4/4 size of the design to the left.**

**For 4/4 size, please go through page 4 - 16 and 39 - end**

**For 3/4 size, please go through page 17 - 27 and 39 - end**

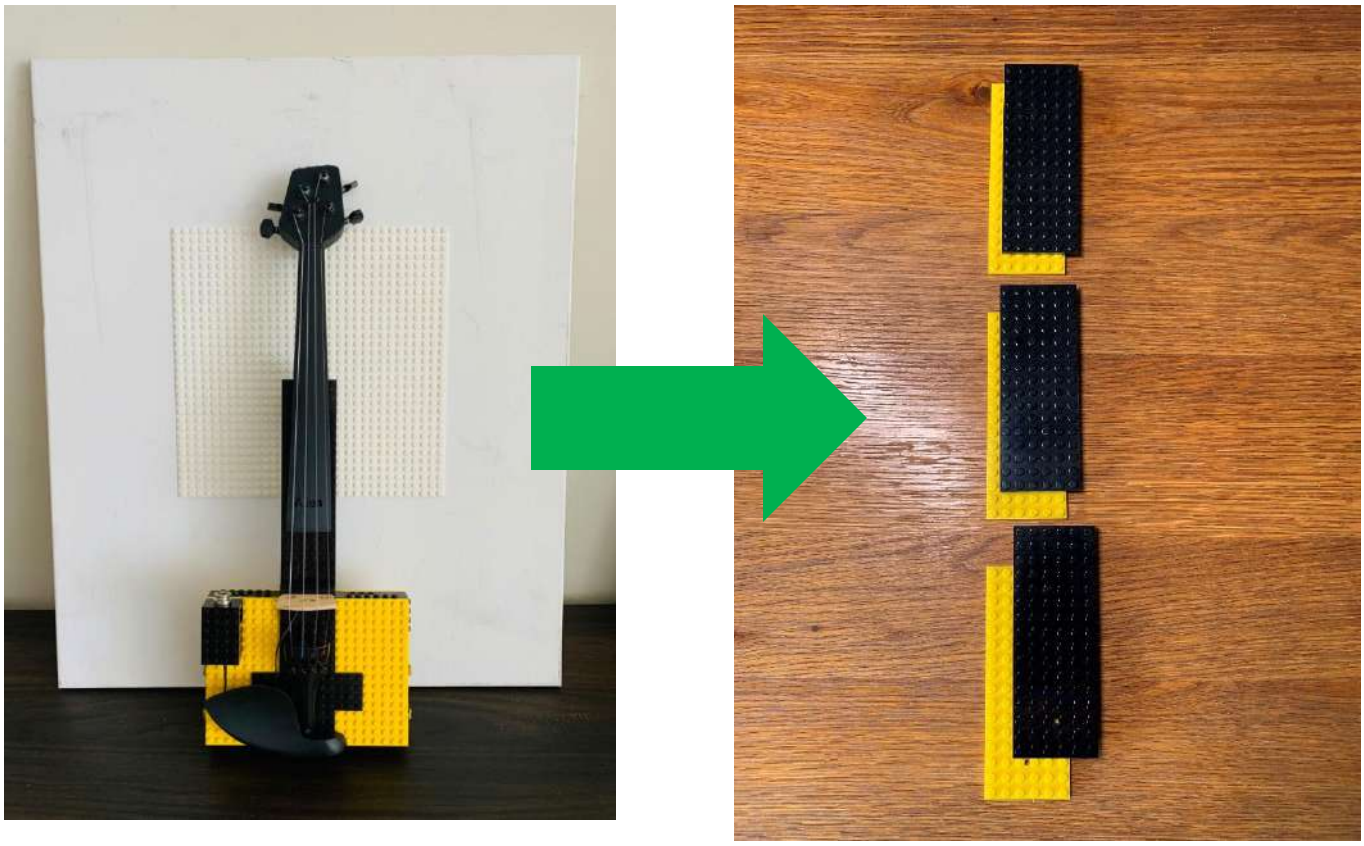
**For 1/2 size, please go through page 28 - end**

# Step 2

Build spine of the violin.

4/4 size spine

**In this example, we will build the violin as below, therefore yellow plate is the back plate of the spine.**

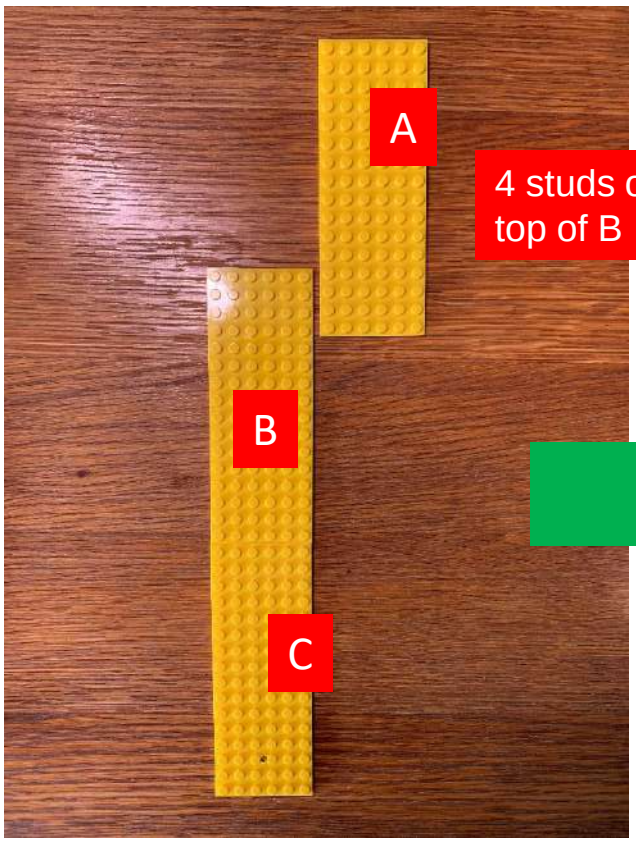


# Step 2

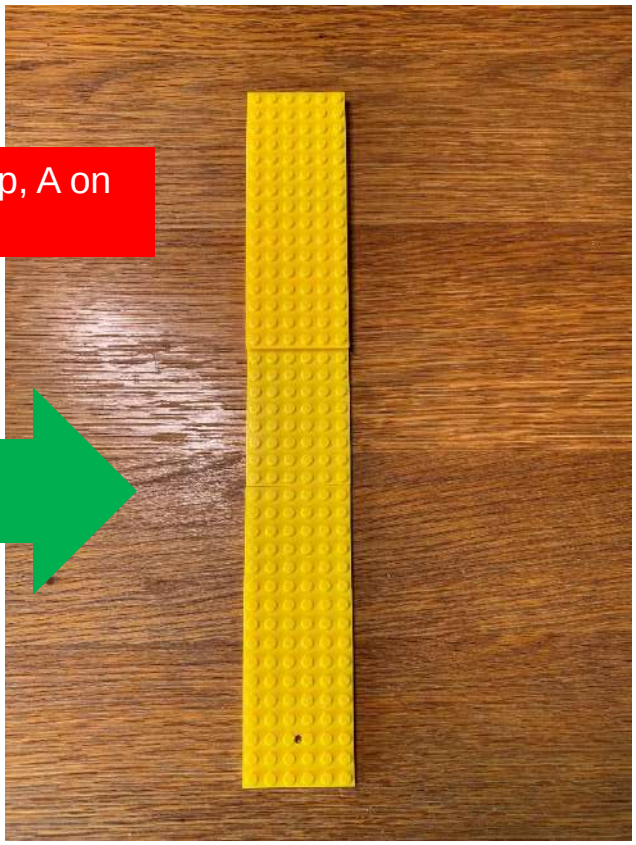
Build spine of the violin.

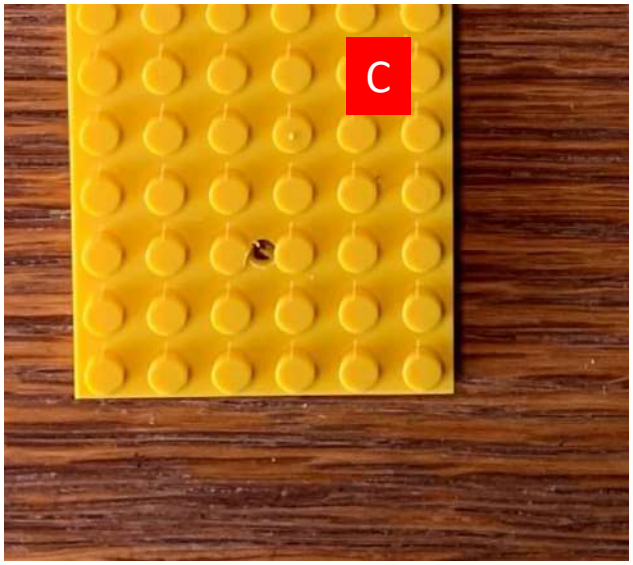
4/4 size spine

**Step 2a – lay out base of the back plate**




4 studs overlap, A on top of B






**Note:**

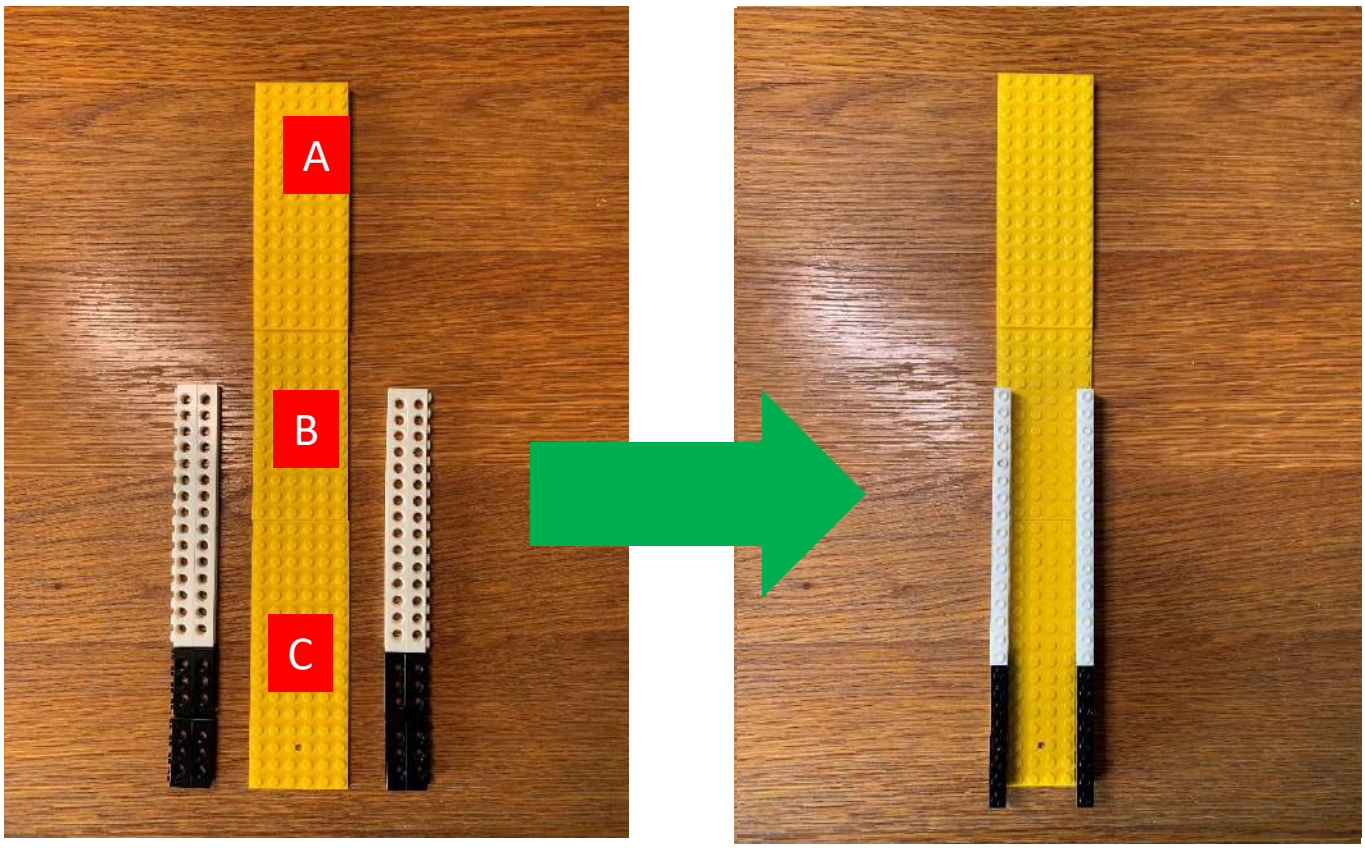
Make sure the bottom plate (C) is the one with hole at the lower half of the plate.

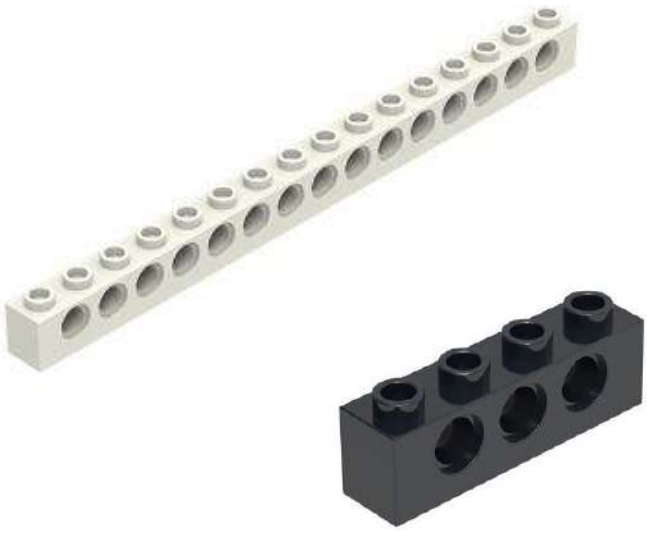
# Step 2

Build spine of the violin.

4/4 size spine

### Step 2b – connect B and C



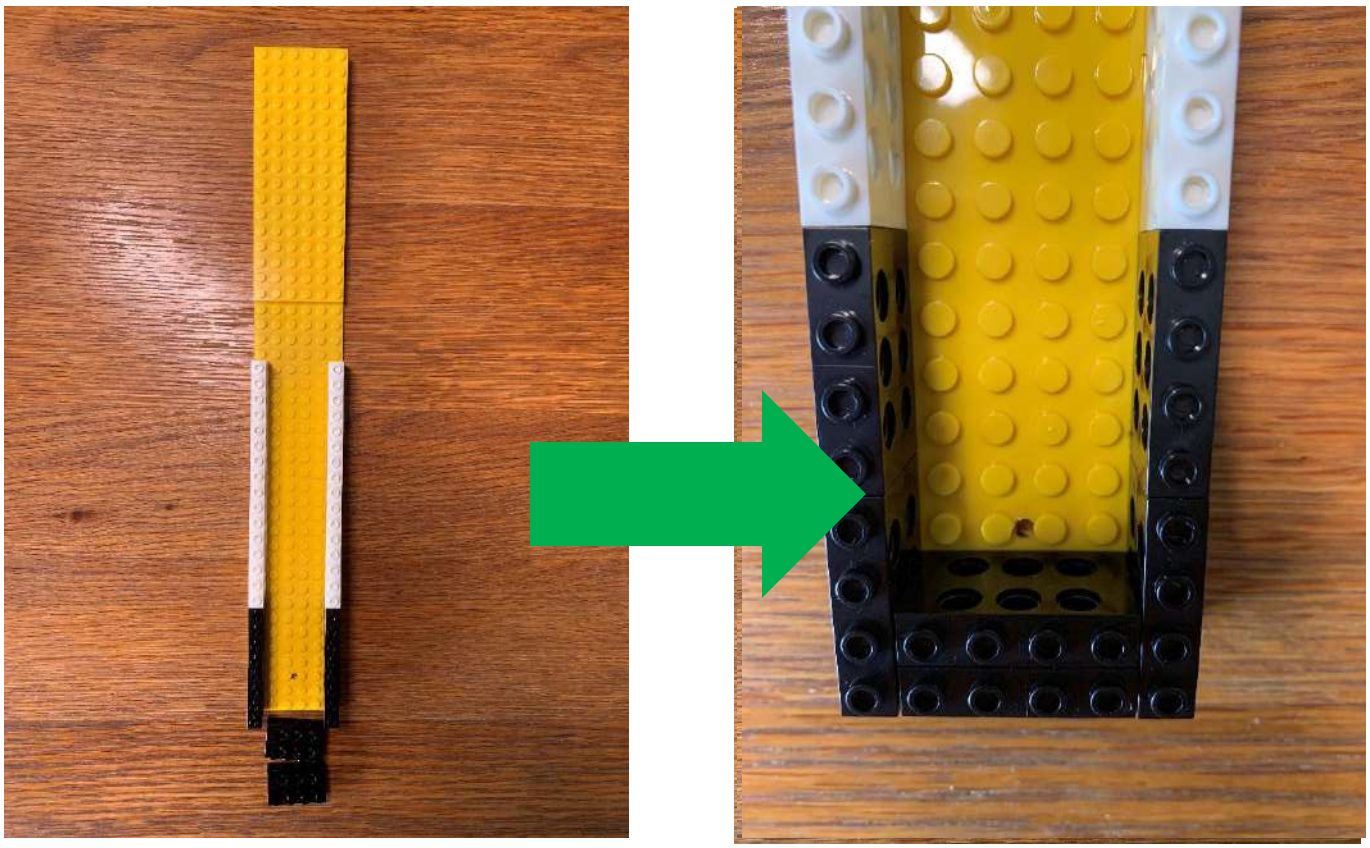



# Step 2

Build spine of the violin.

4/4 size spine

### Step 2c

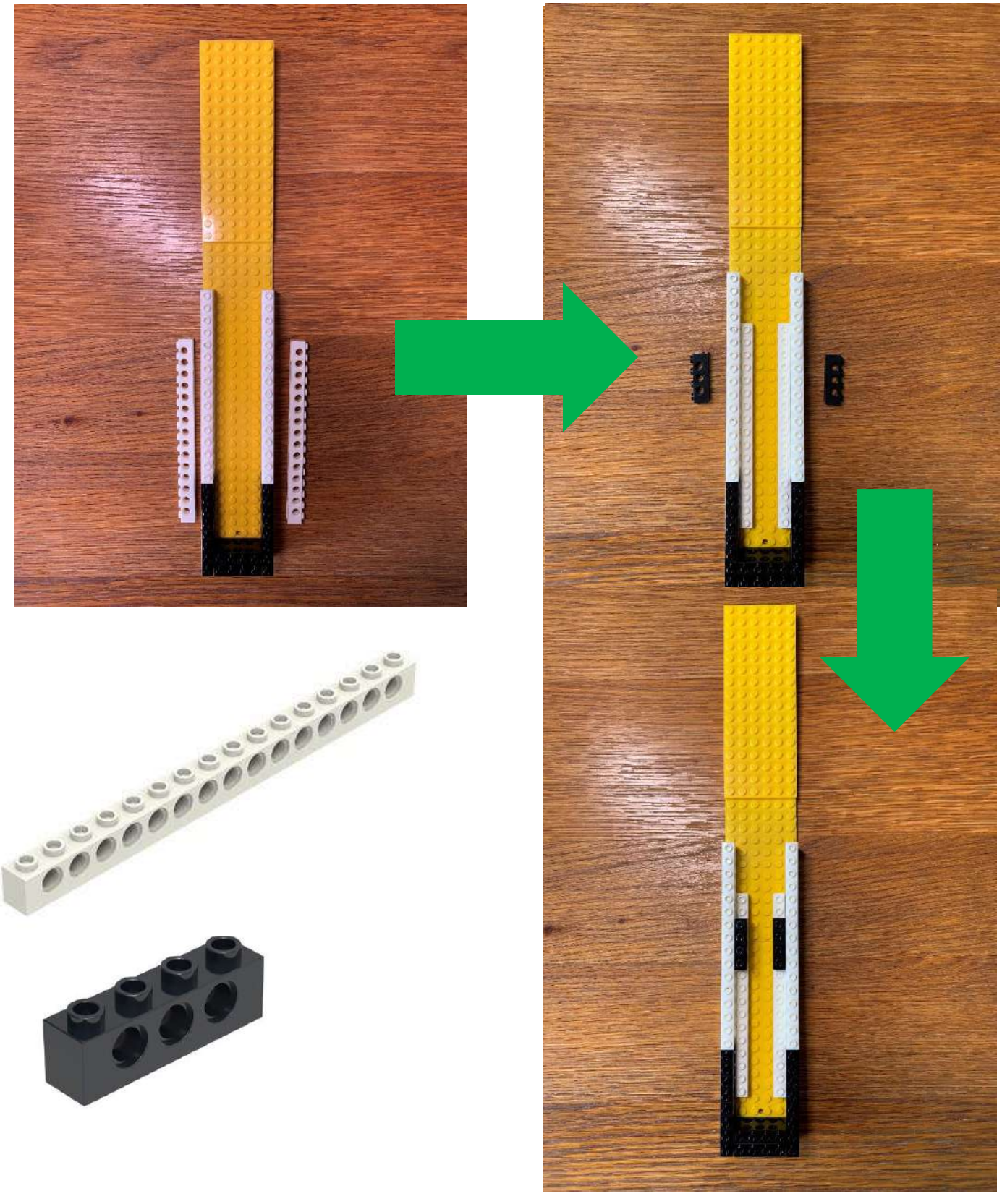


# Step 2

Build spine of the violin.

4/4 size spine

### Step 2d

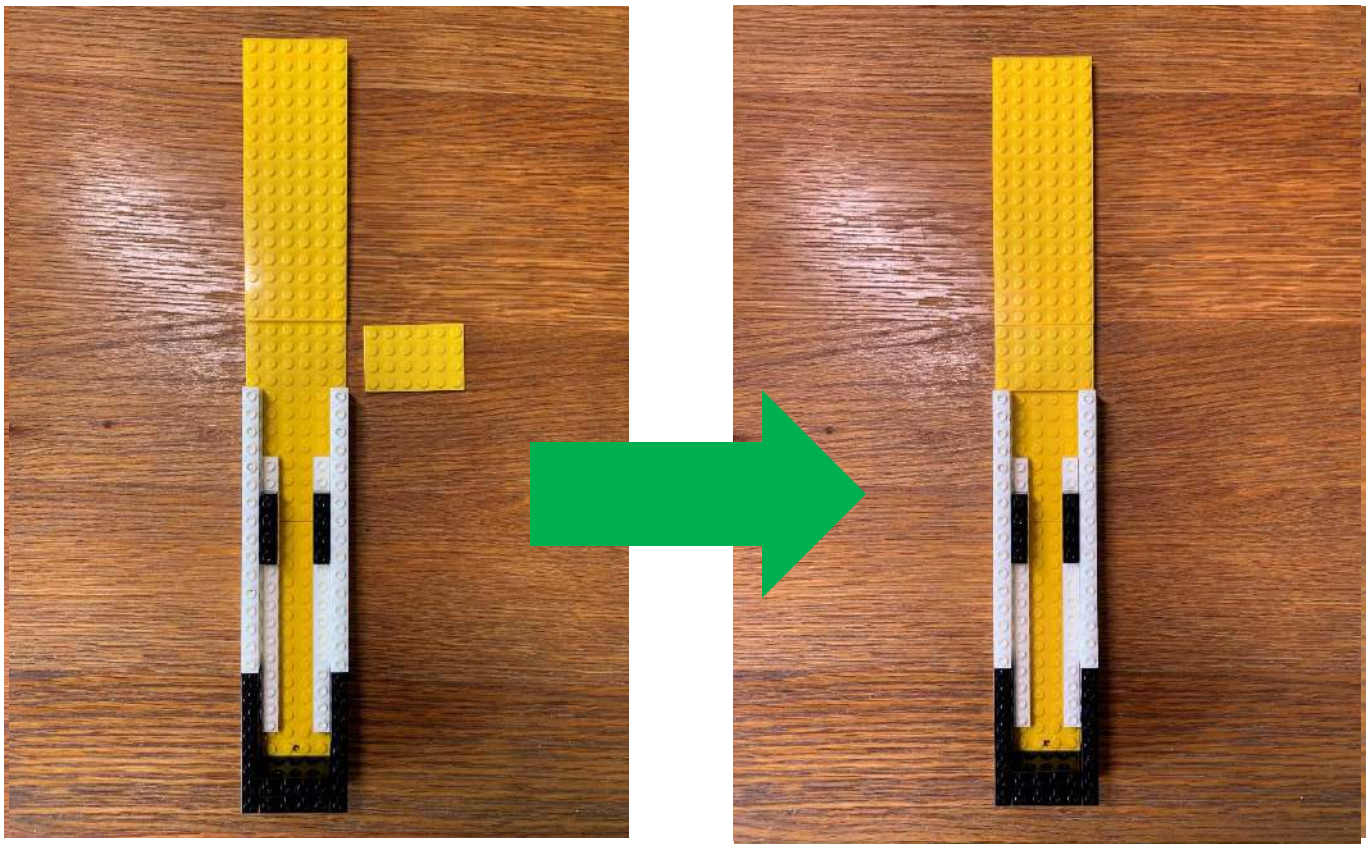


# Step 2

Build spine of the violin.

4/4 size spine

### Step 2e

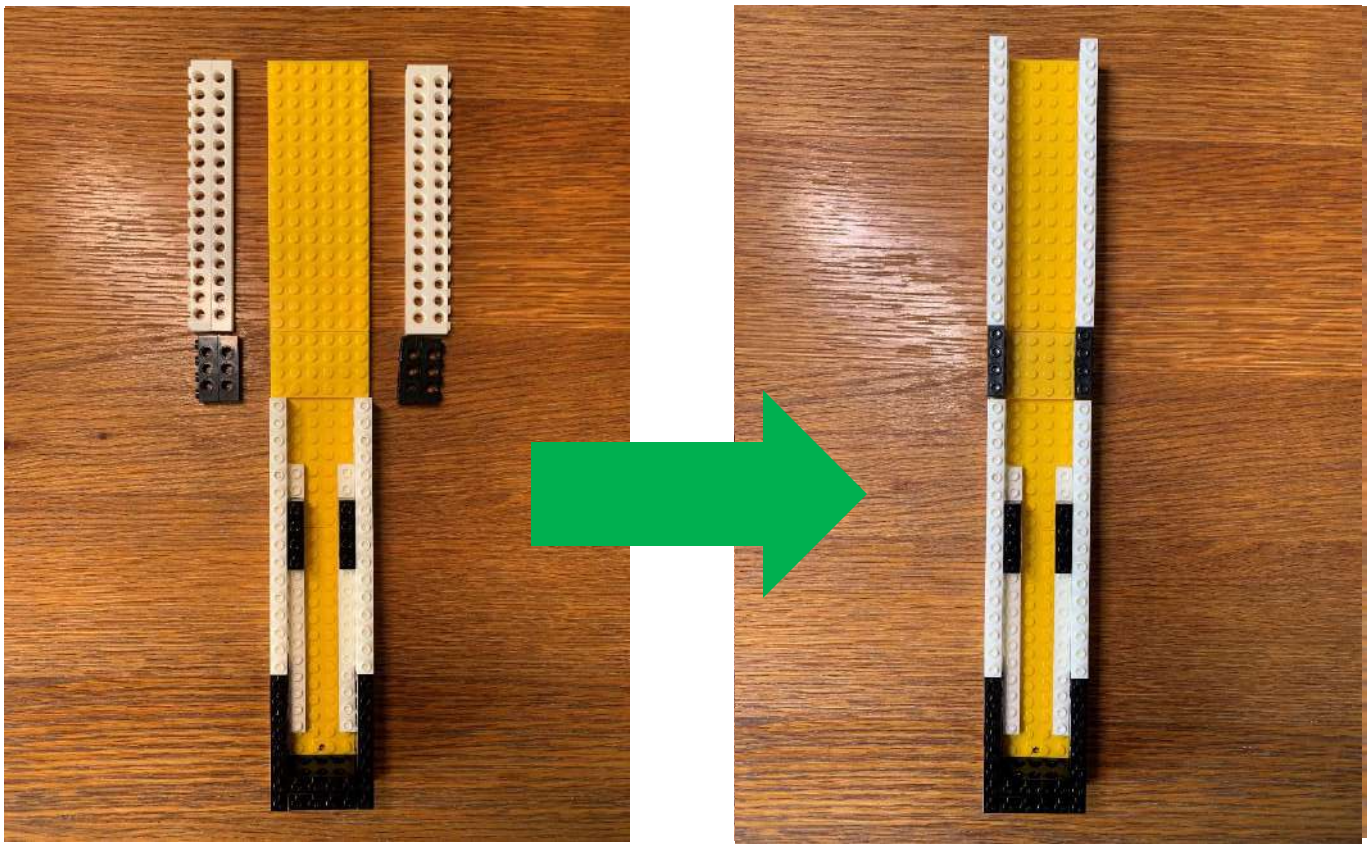


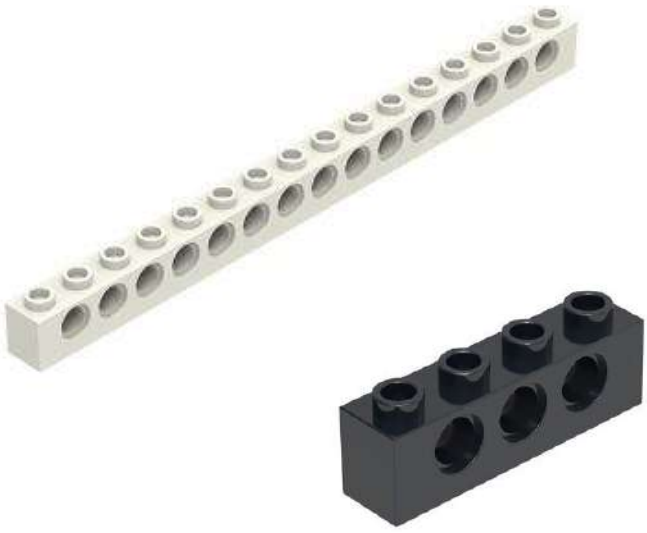
# Step 2

Build spine of the violin.

4/4 size spine

**Step 2f**



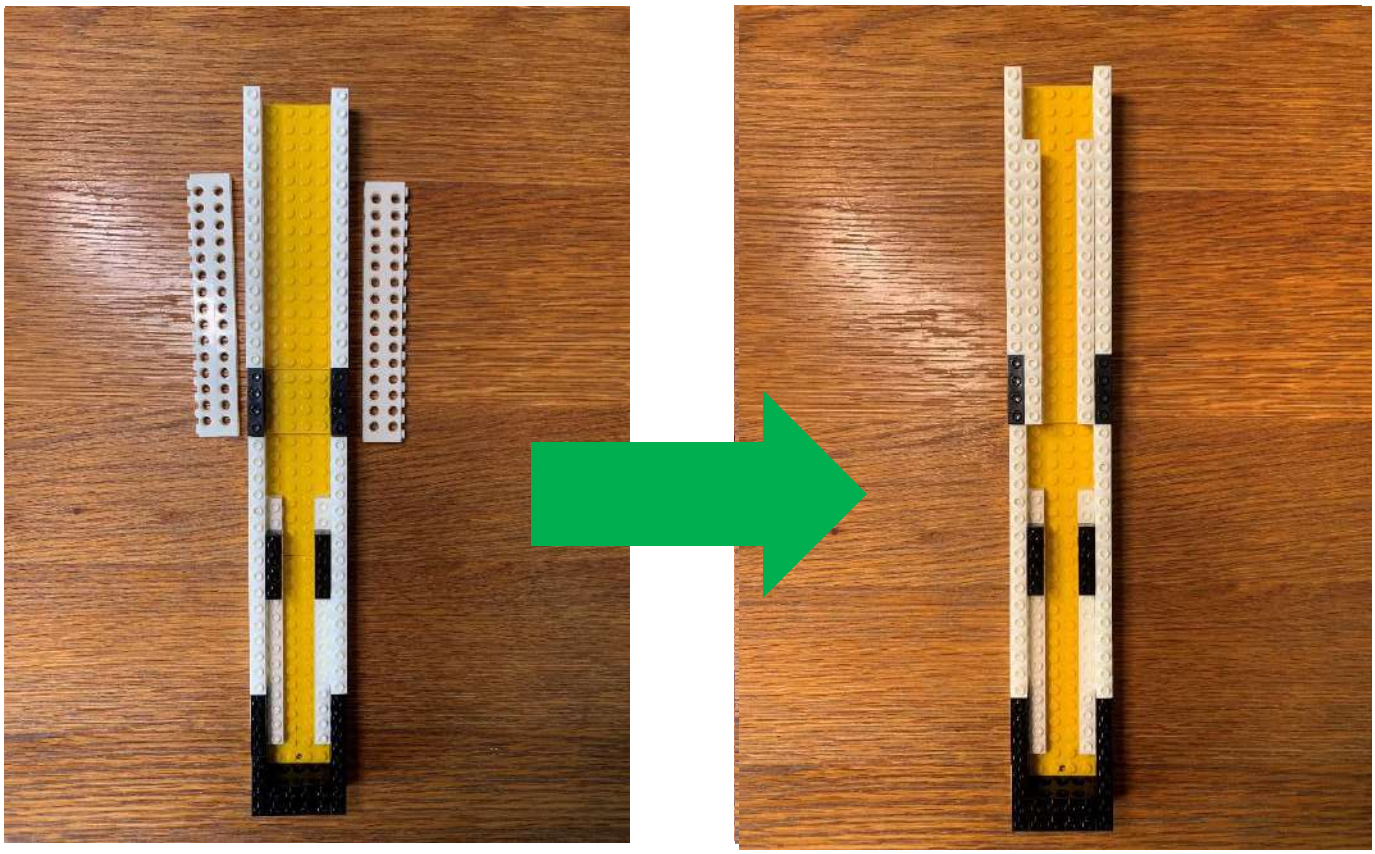


# Step 2

Build spine of the violin.

4/4 size spine

### Step 2g

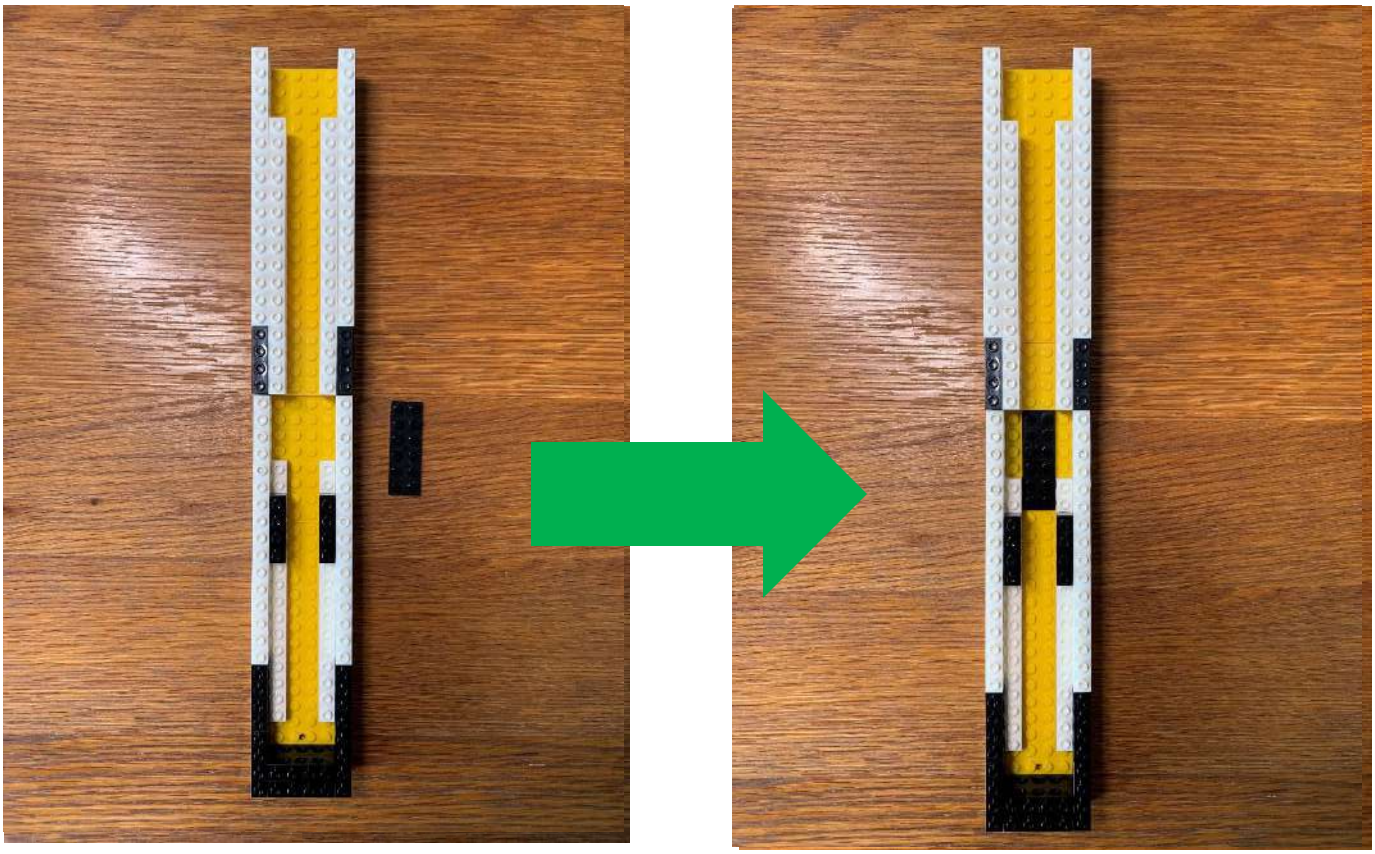


# Step 2

Build spine of the violin.

4/4 size spine

### Step 2h

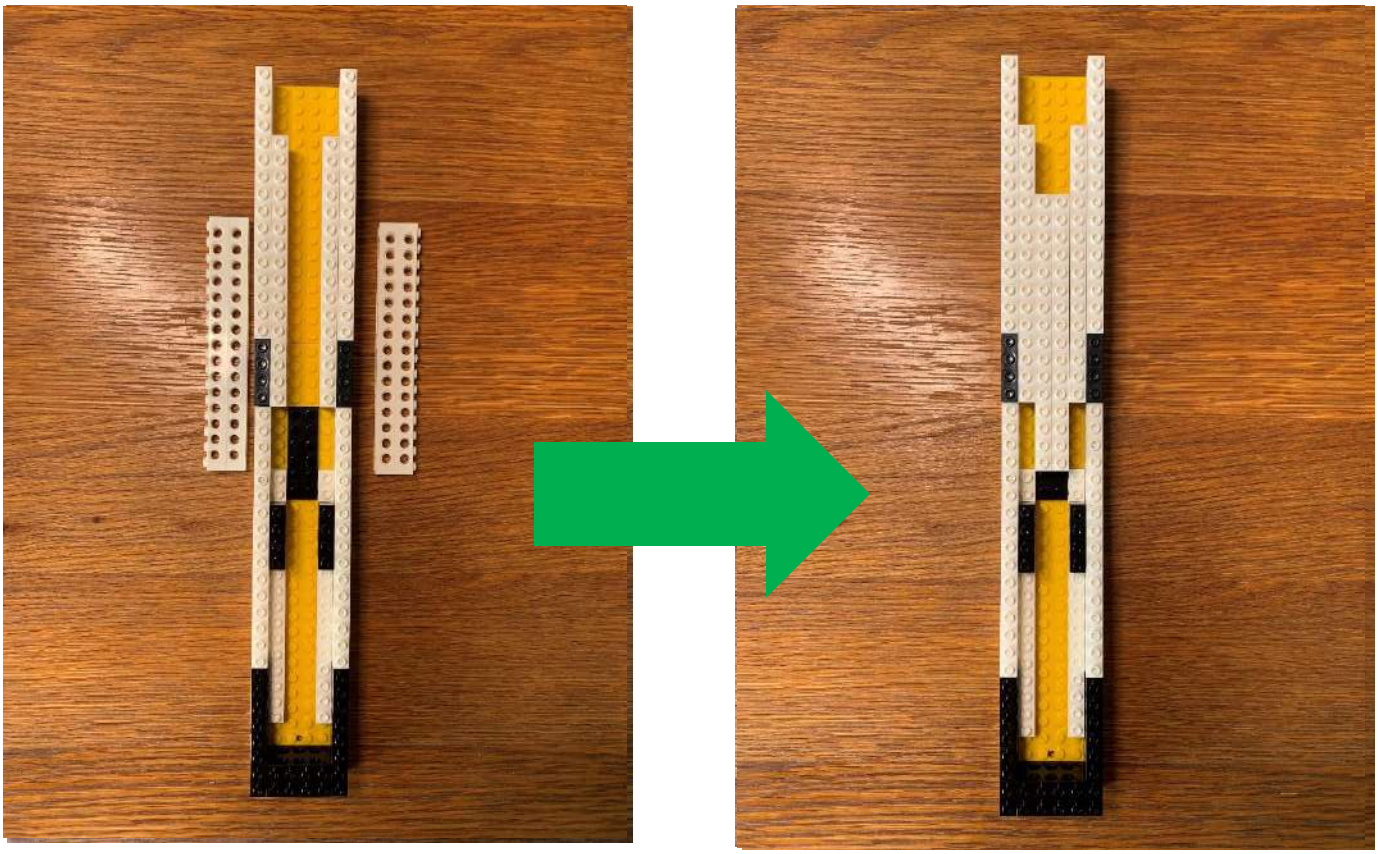


# Step 2

Build spine of the violin.

4/4 size spine

**Step 2i**

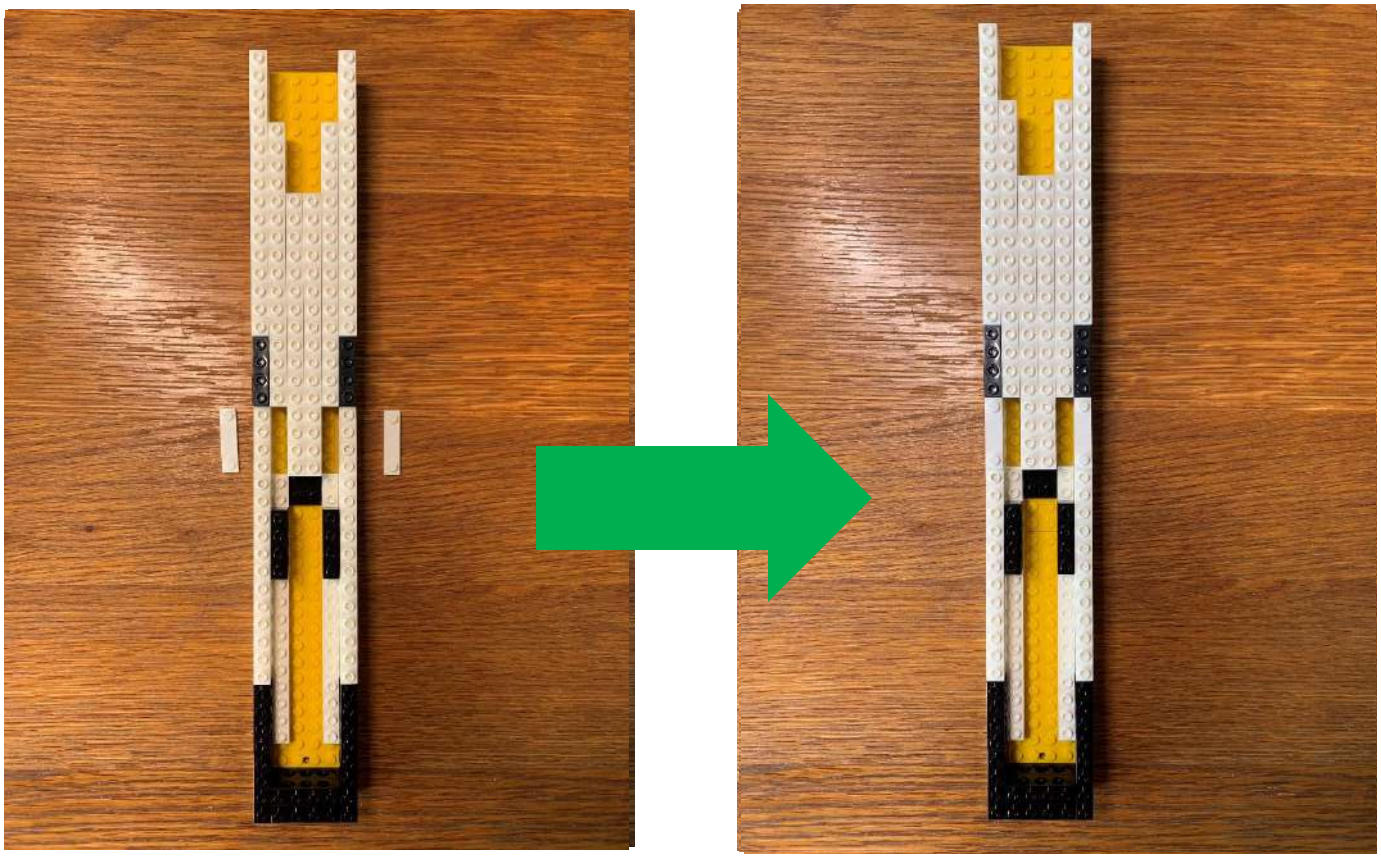


# Step 2

Build spine of the violin.

4/4 size spine

**Step 2j**

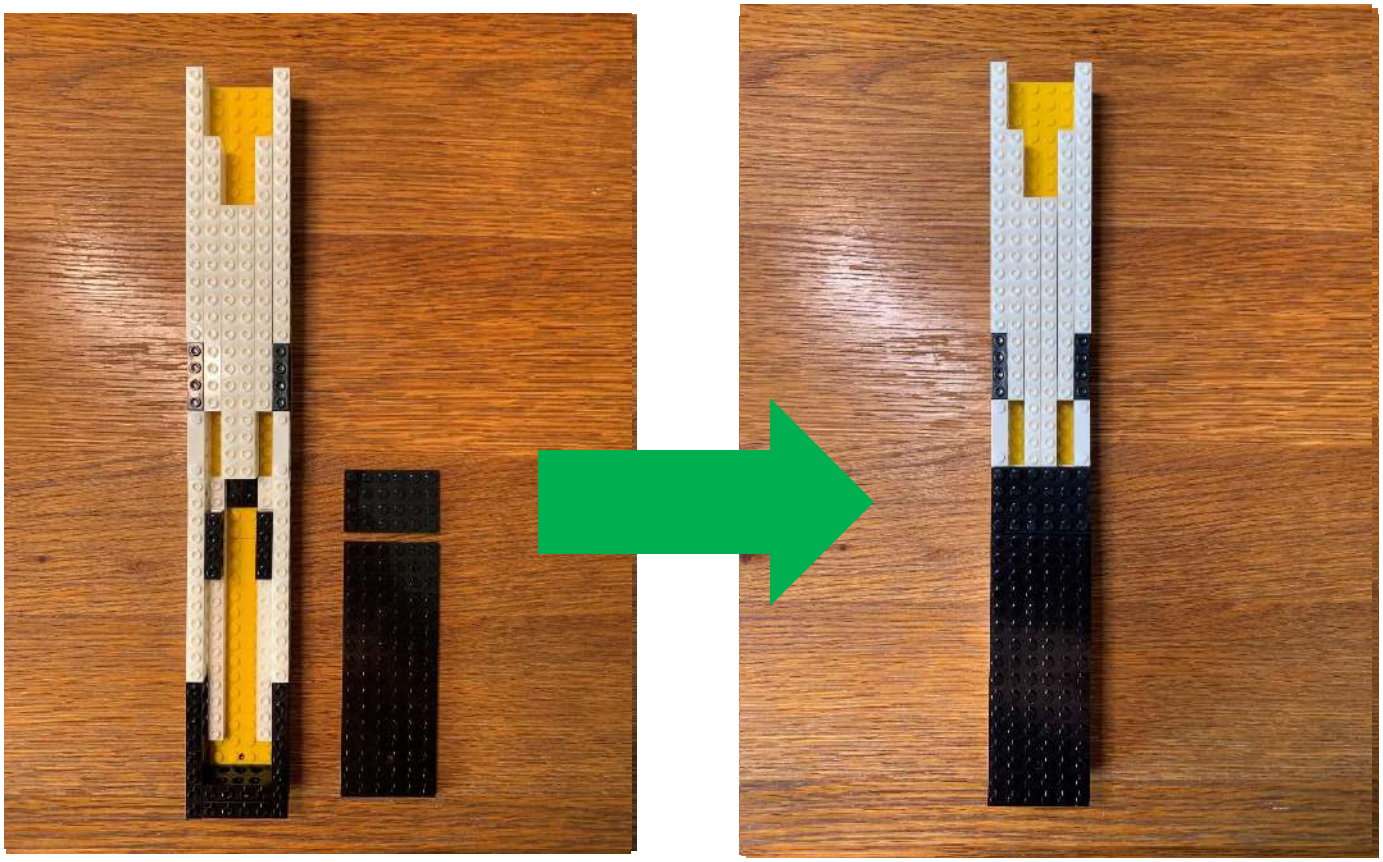


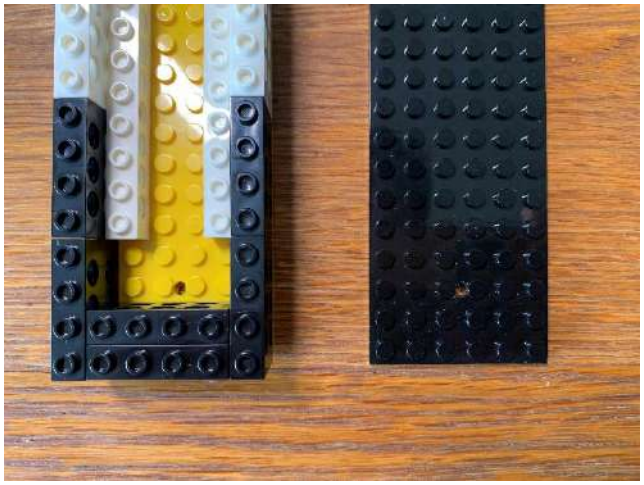
# Step 2

Build spine of the violin.

4/4 size spine

**Step 2k**





**Note:**

Make sure the bottom plate is the one with hole at the lower half ot the plate.

# Step 2

Build spine of the violin.

4/4 size spine

**Note:**

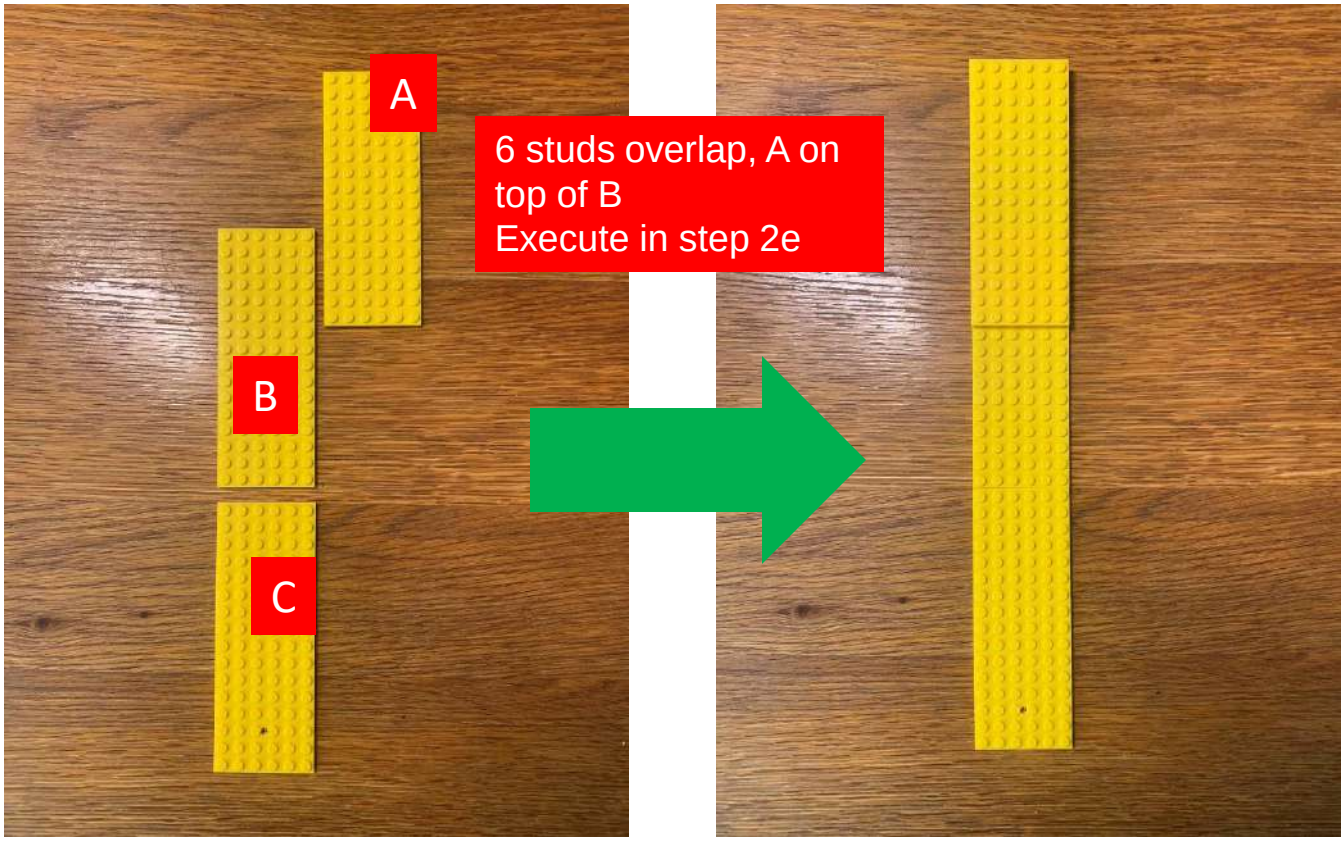
4/4 size spine is done, please skip to page 39 for step 3

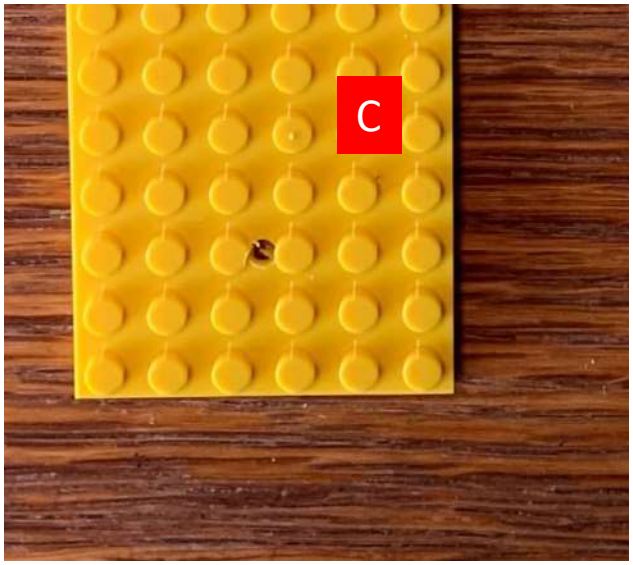
# Step 2

Build spine of the violin.

3/4 size spine

**Step 2a – lay out base of the back plate**




**Note:**

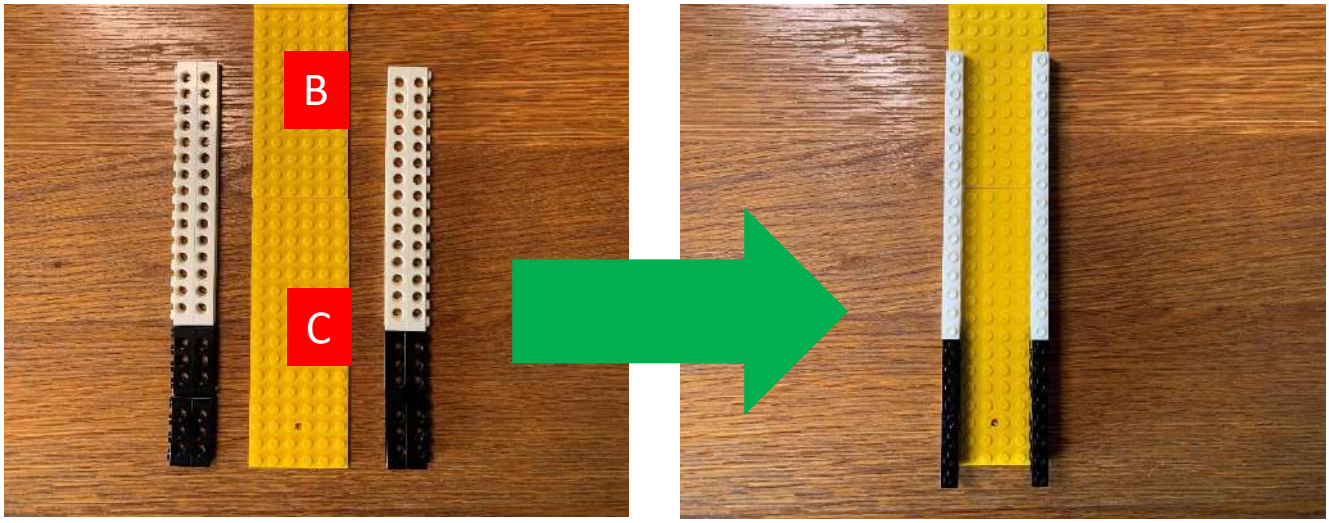
Make sure the bottom plate (C) is the one with hole at the lower half of the plate.

# Step 2

Build spine of the violin.

3/4 size spine

**Step 2b – connect B and C**

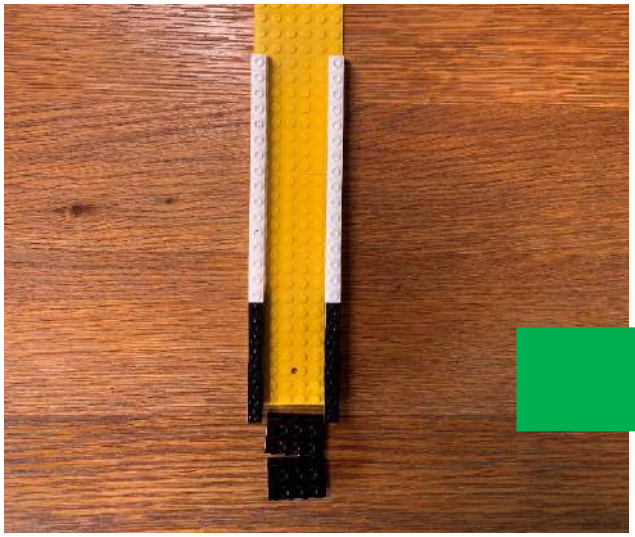



# Step 2

Build spine of the violin.

3/4 size spine

**Step 2c**

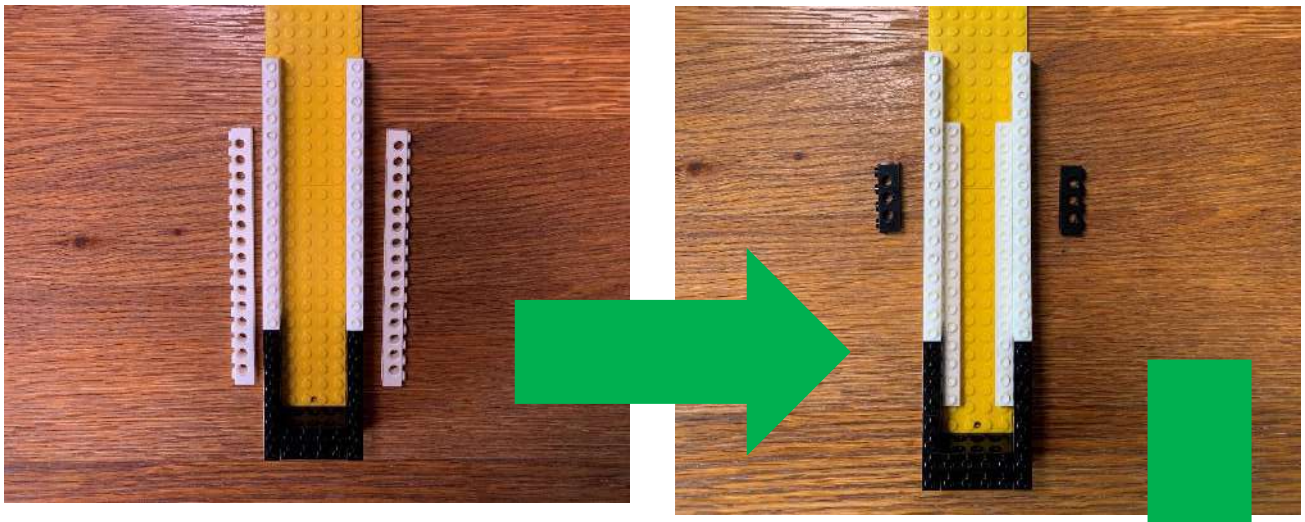


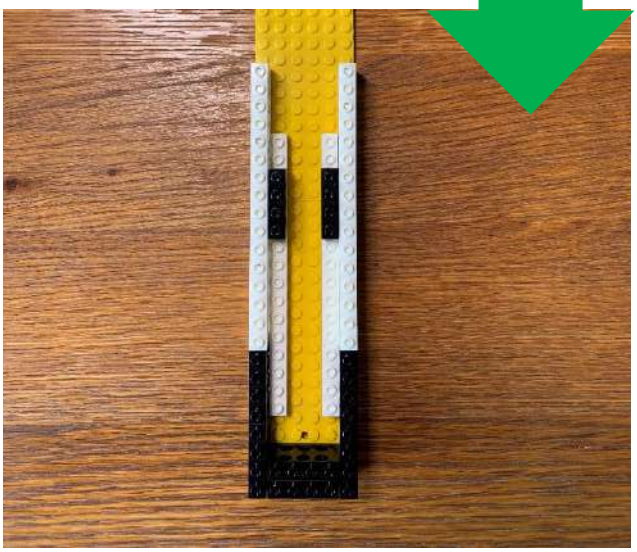
# Step 2

Build spine of the violin.

3/4 size spine

**Step 2d**



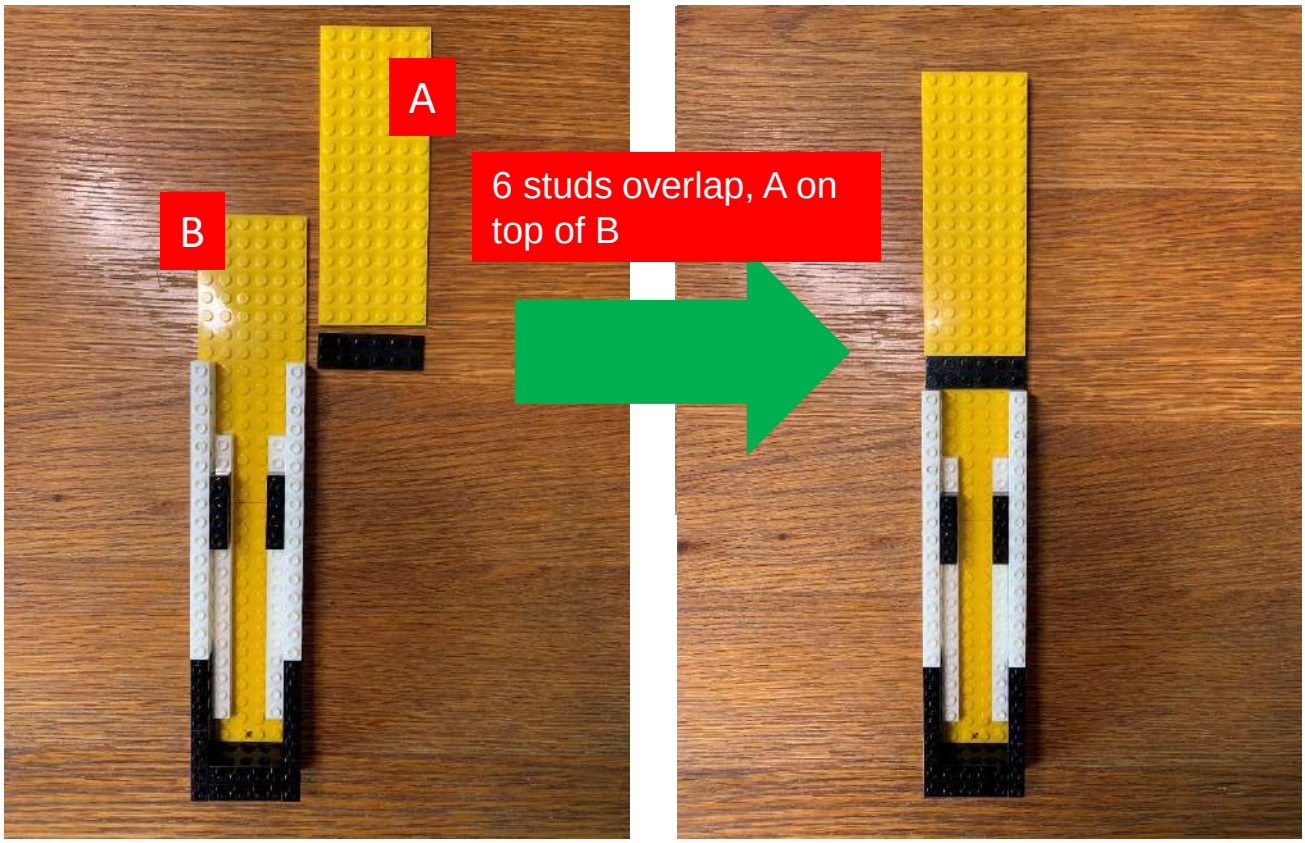


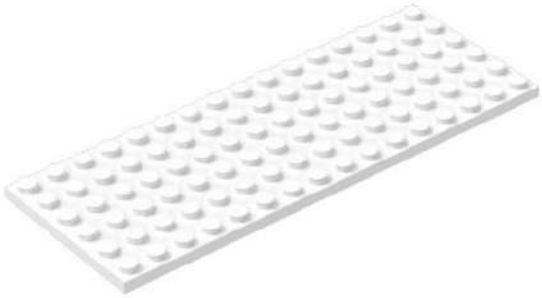
# Step 2

Build spine of the violin.

3/4 size spine

**Step 2e**



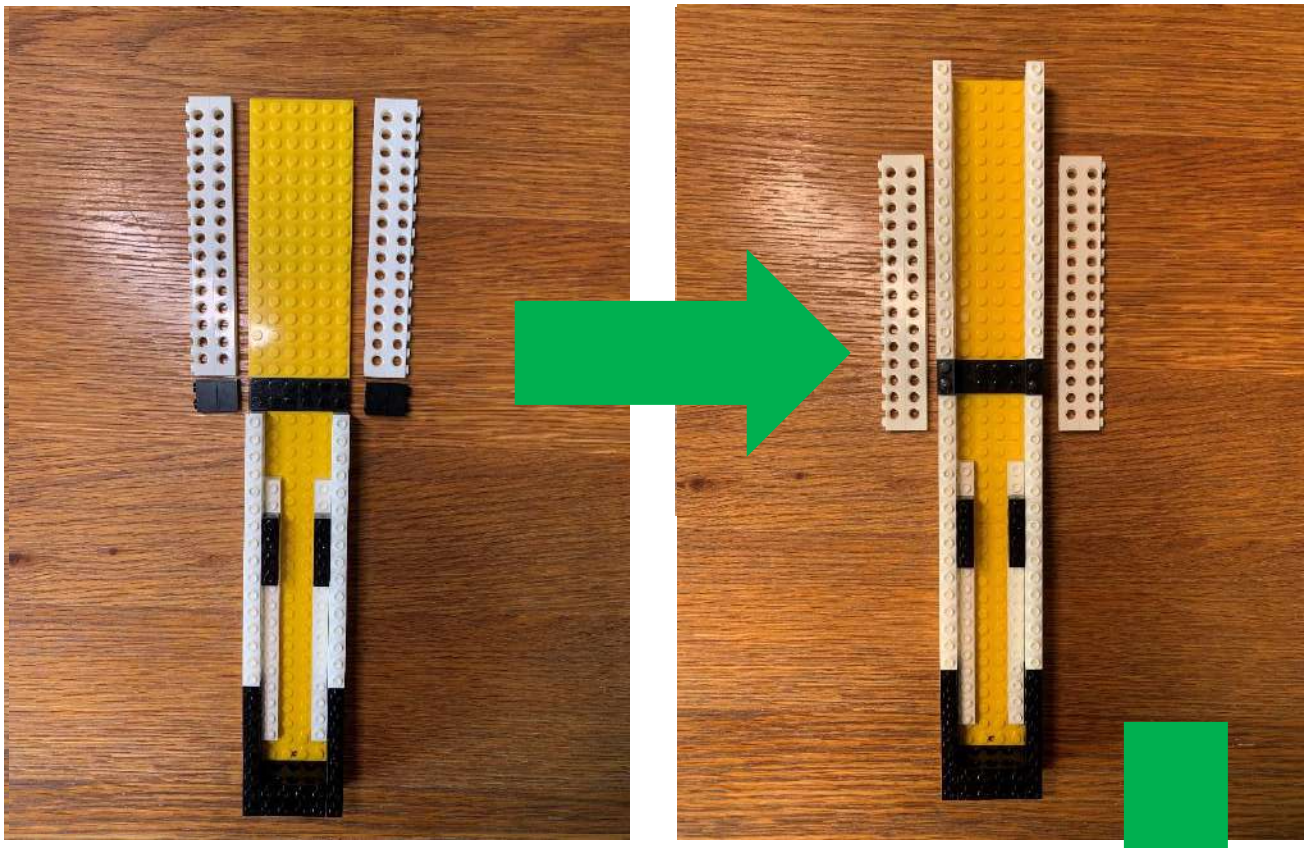



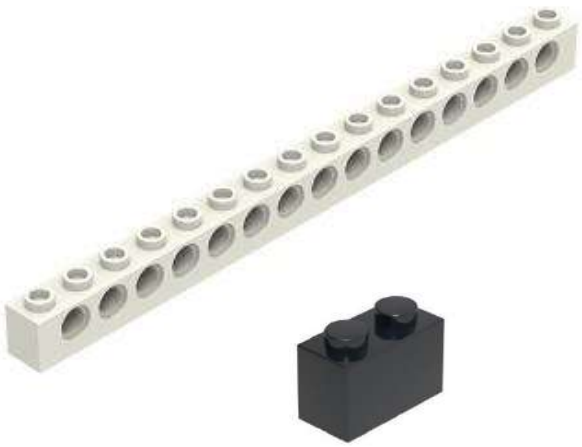
# Step 2

Build spine of the violin.

3/4 size spine

**Step 2f**



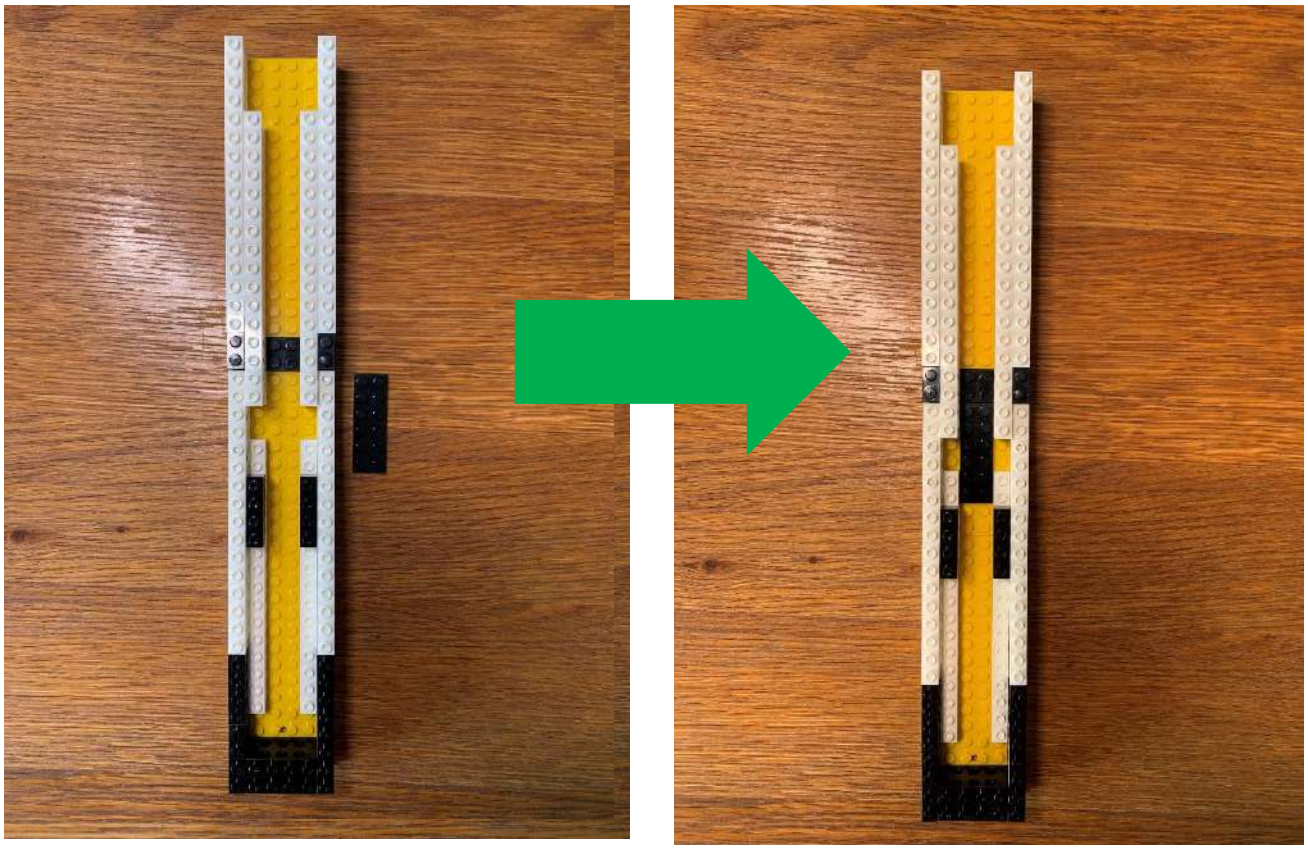


# Step 2

Build spine of the violin.

3/4 size spine

**Step 2g**

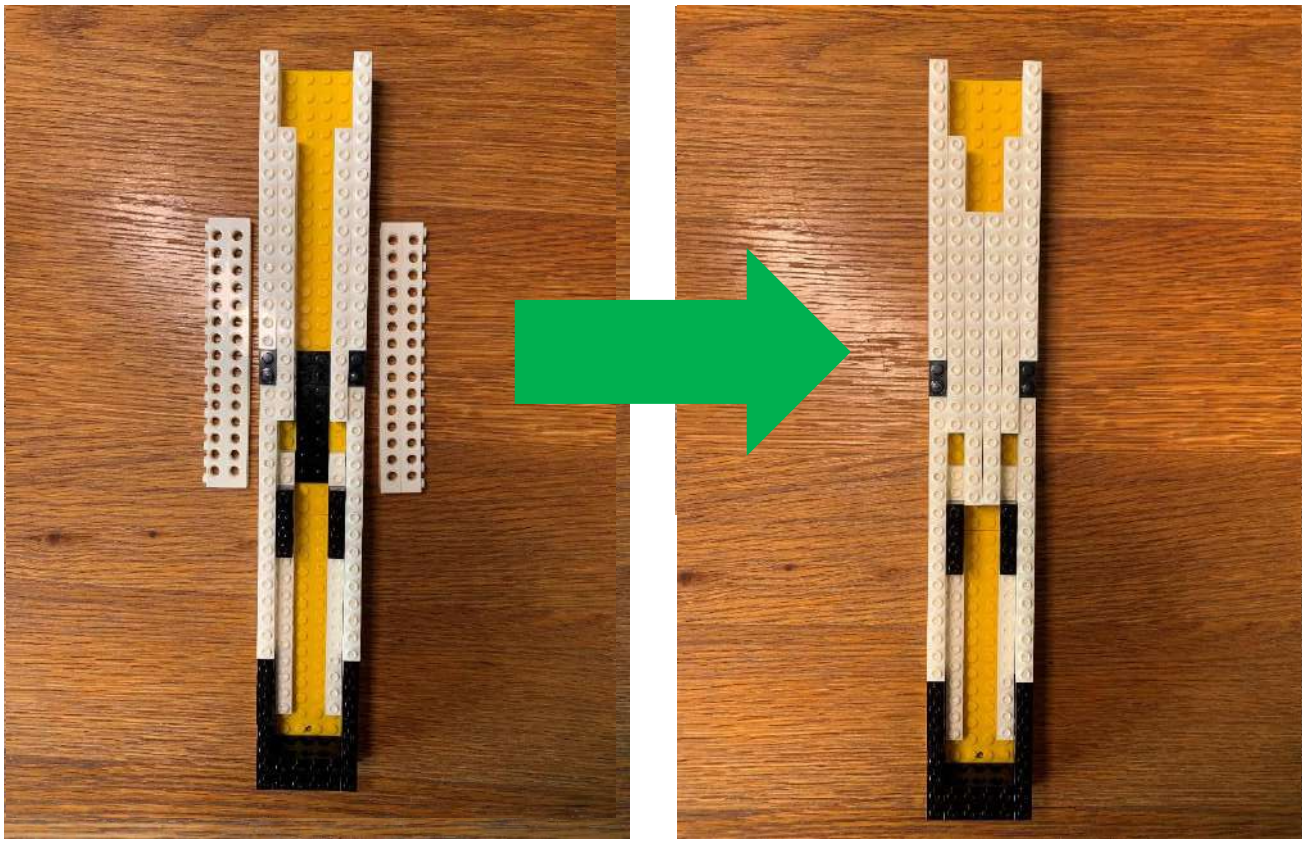


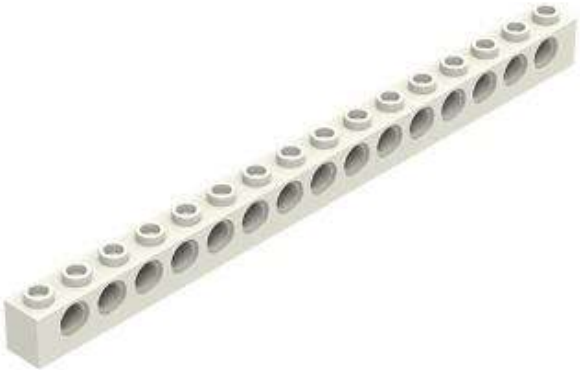
# Step 2

Build spine of the violin.

3/4 size spine

**Step 2h**



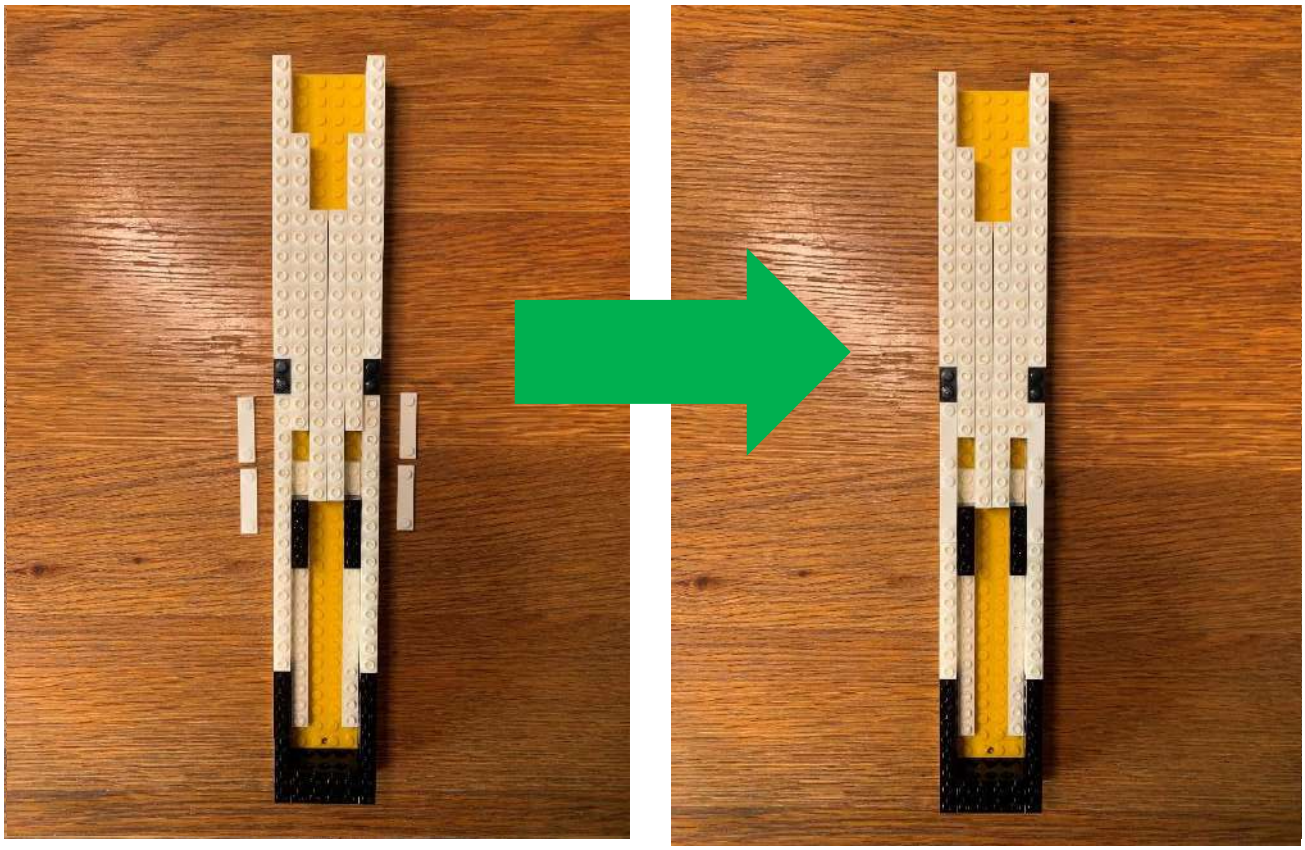


# Step 2

Build spine of the violin.

3/4 size spine

**Step 2i**

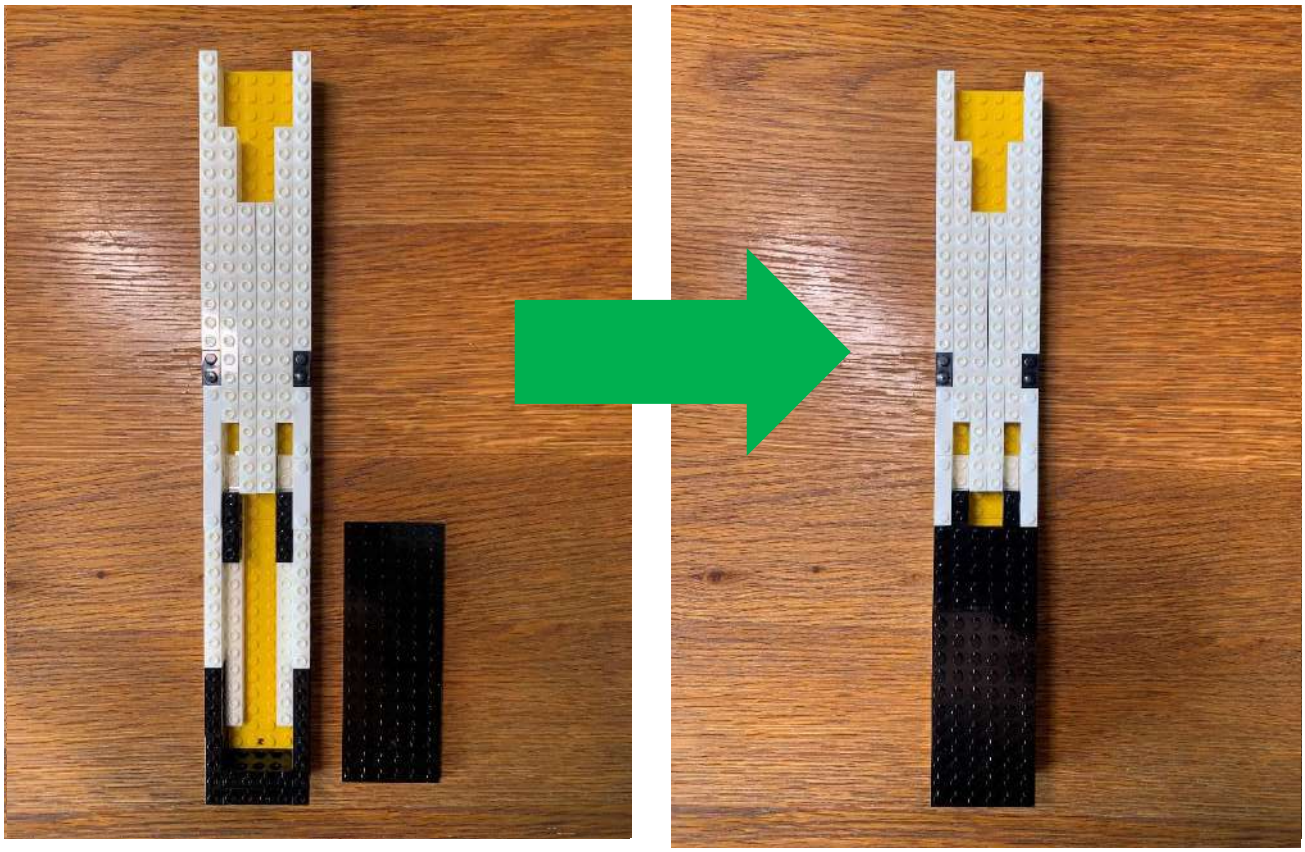


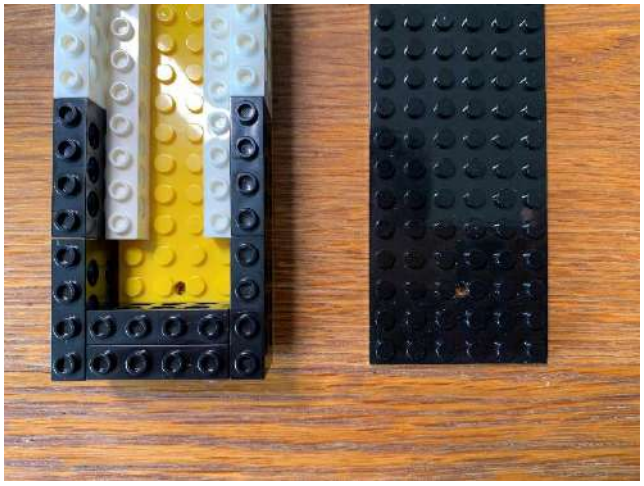
# Step 2

Build spine of the violin.

3/4 size spine

**Step 2j**





**Note:**

Make sure the bottom plate is the one with hole at the lower half ot the plate.

# Step 2

Build spine of the violin.

3/4 size spine

**Note:**

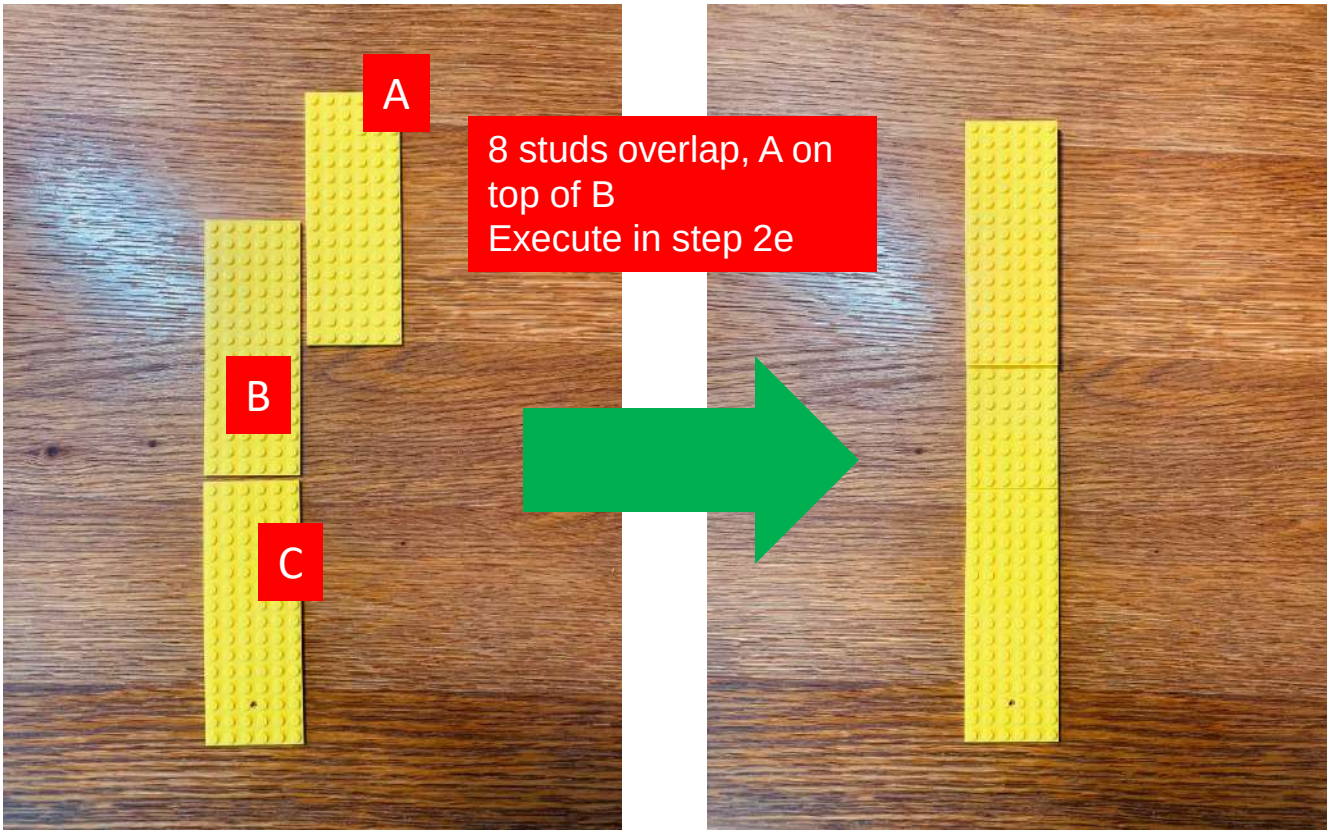
3/4 size spine is done, please skip to page 39 for step 3

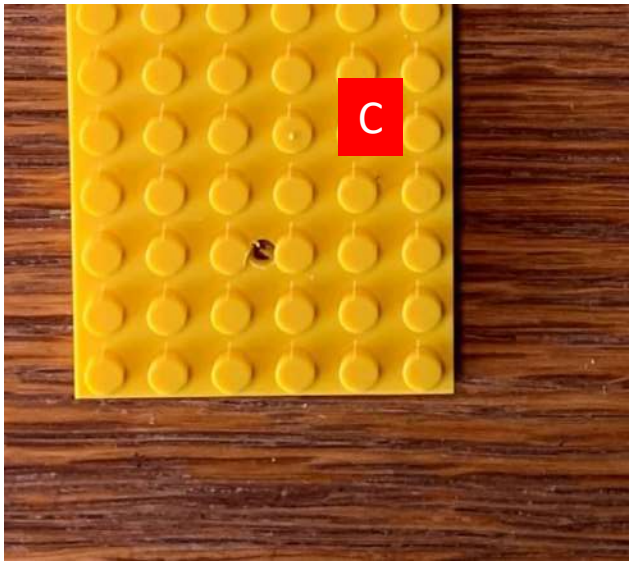
# Step 2

Build spine of the violin.

1/2 size spine

**Step 2a – lay out base of the back plate**




**Note:**

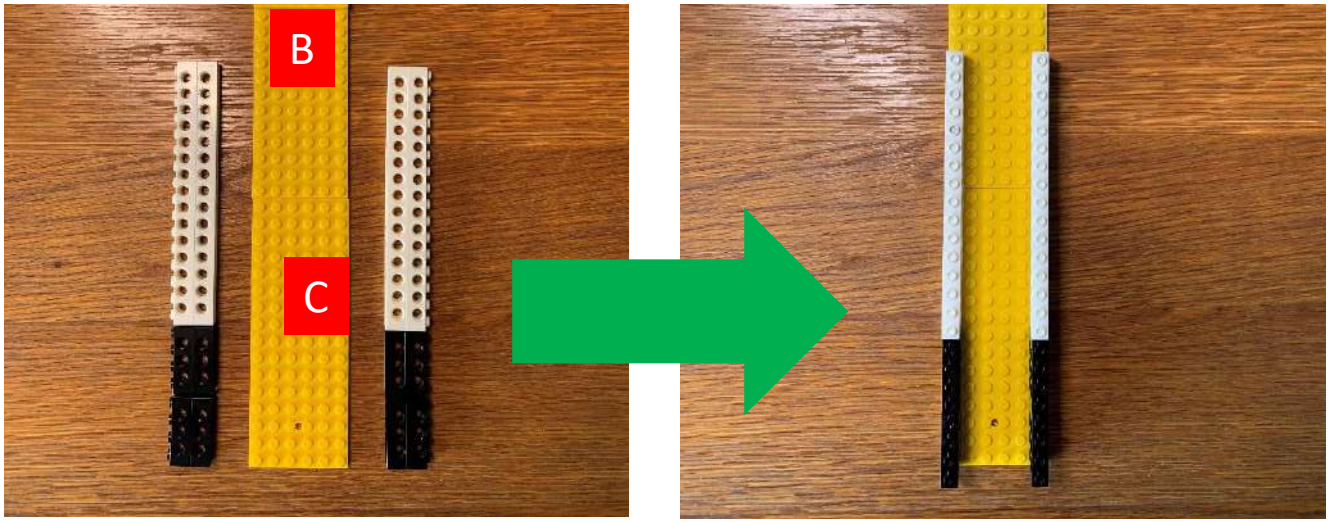
Make sure the bottom plate (C) is the one with hole at the lower half of the plate.

# Step 2

1/2 size spine

Build spine of the violin.

**Step 2b – connect B and C**

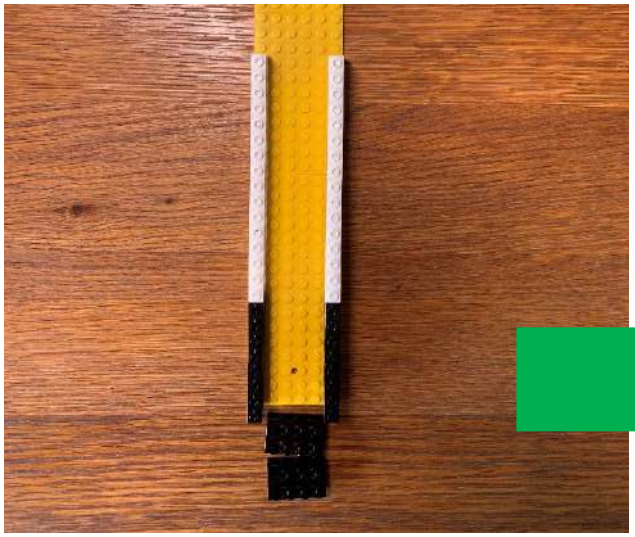



# Step 2

Build spine of the violin.

1/2 size spine

**Step 2c**

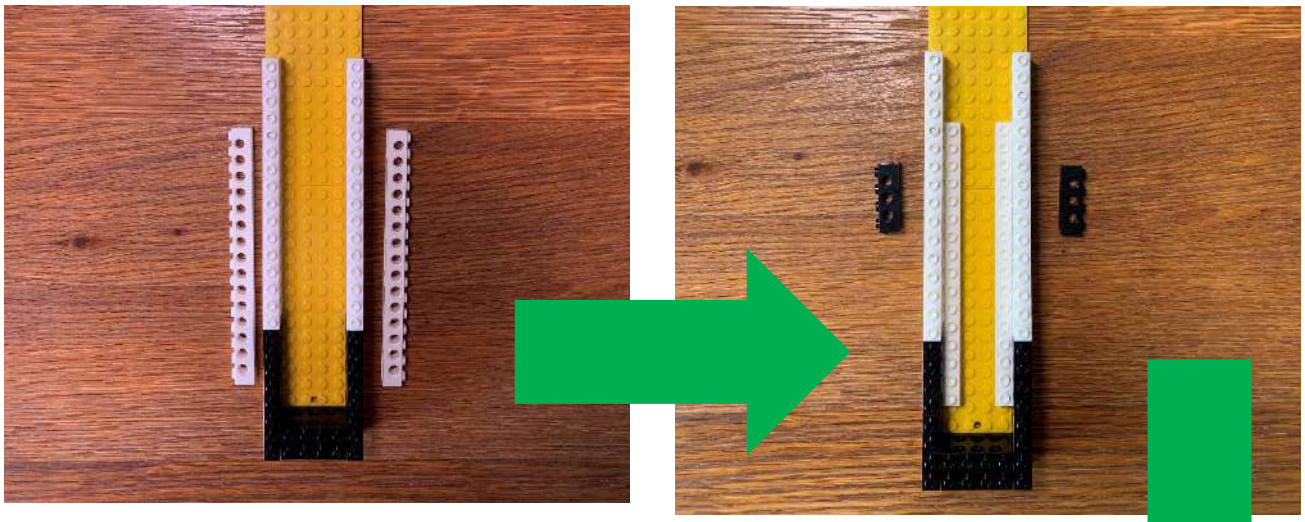


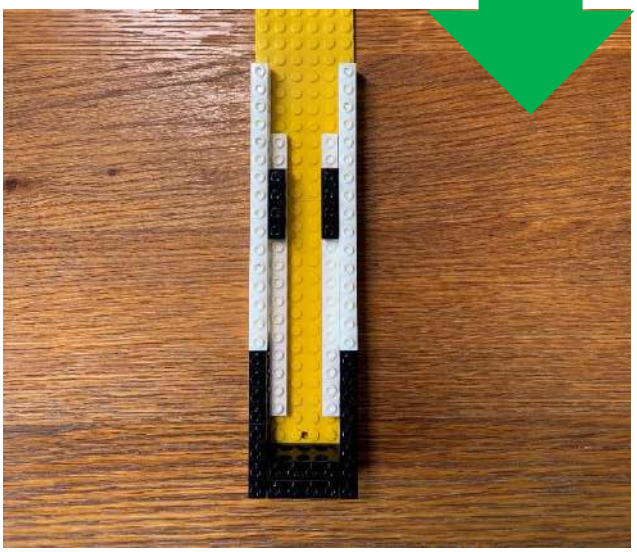
# Step 2

Build spine of the violin.

1/2 size spine

**Step 2d**



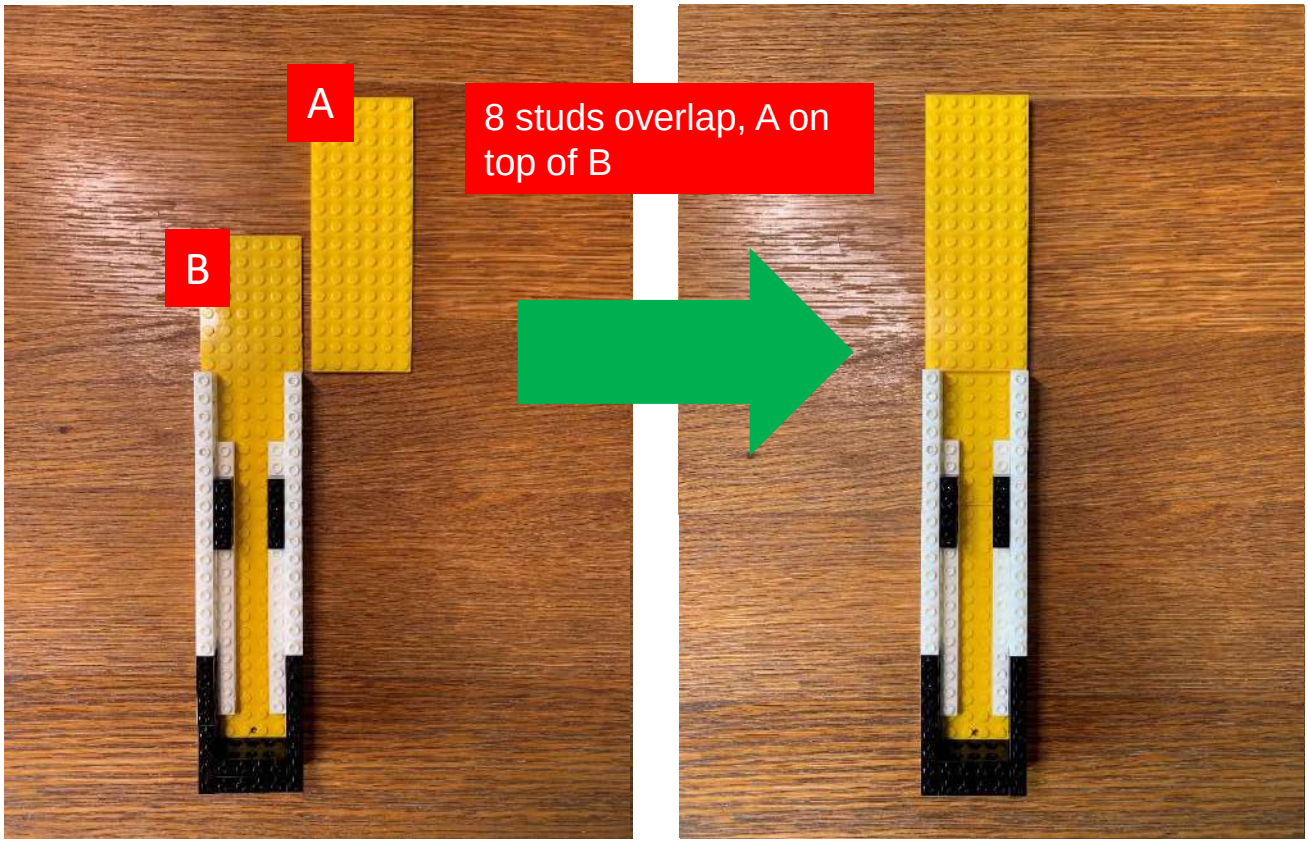


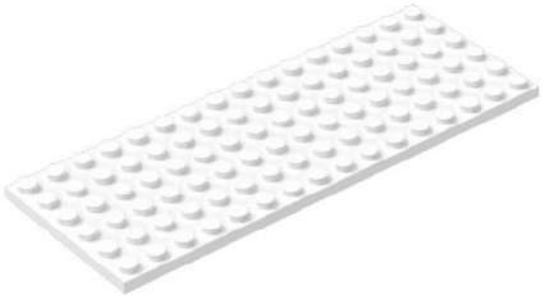
# Step 2

Build spine of the violin.

1/2 size spine

**Step 2e**



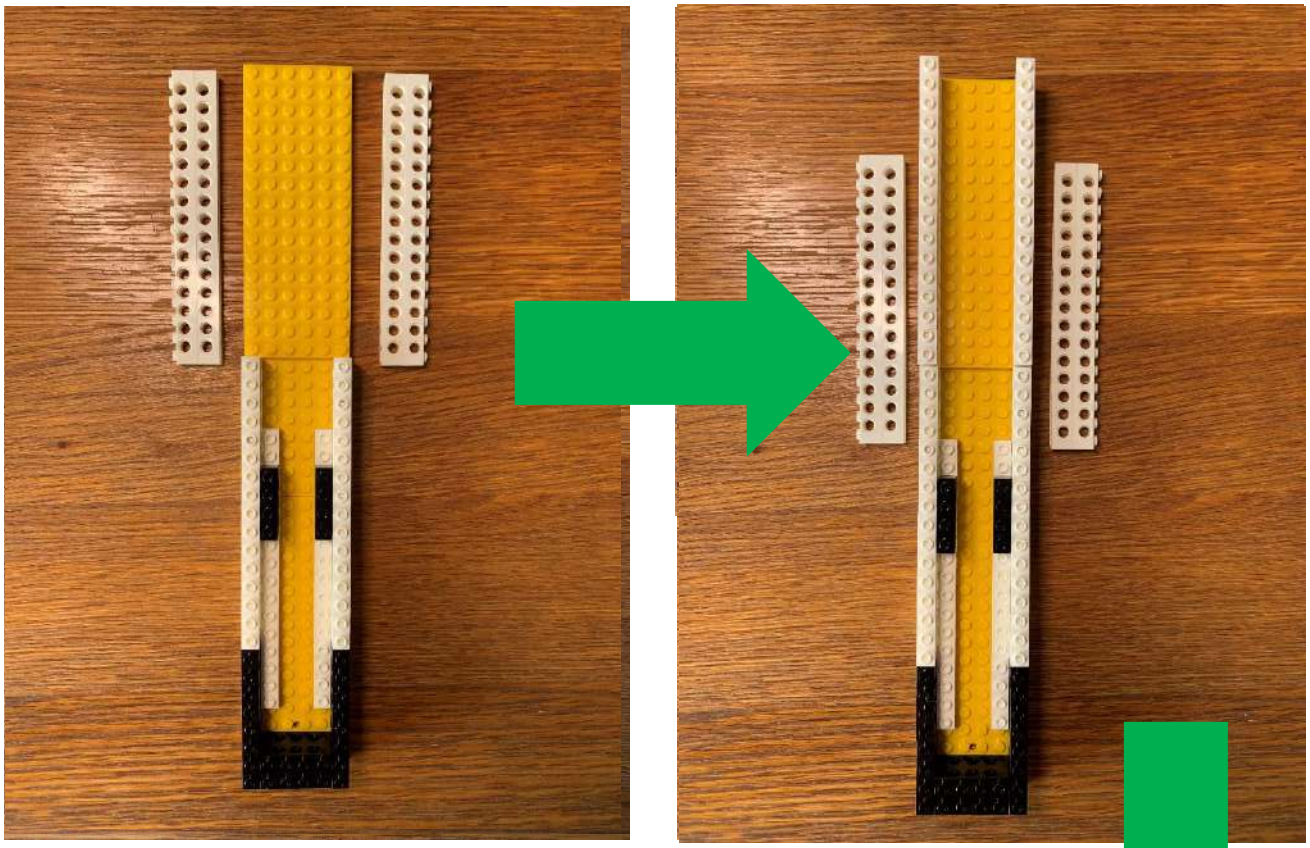



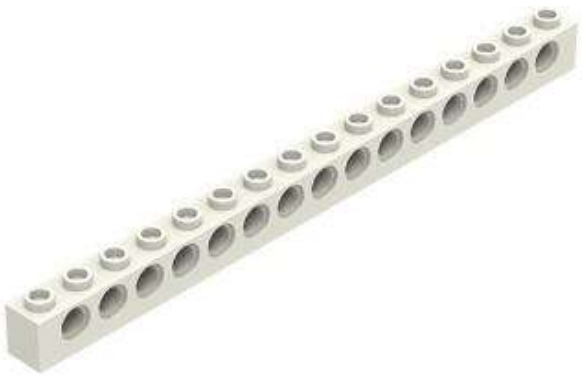
# Step 2

Build spine of the violin.

1/2 size spine

**Step 2f**



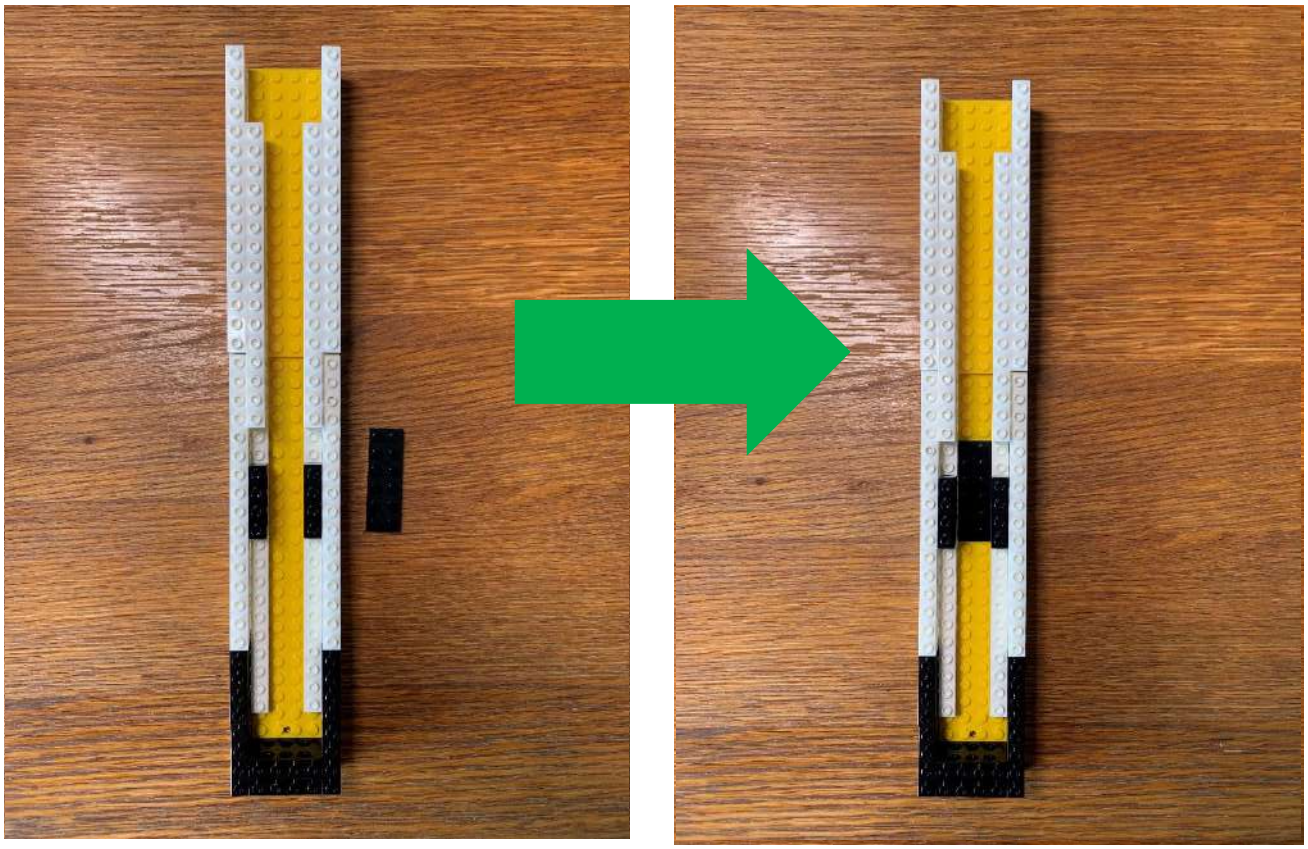


# Step 2

Build spine of the violin.

1/2 size spine

**Step 2g**

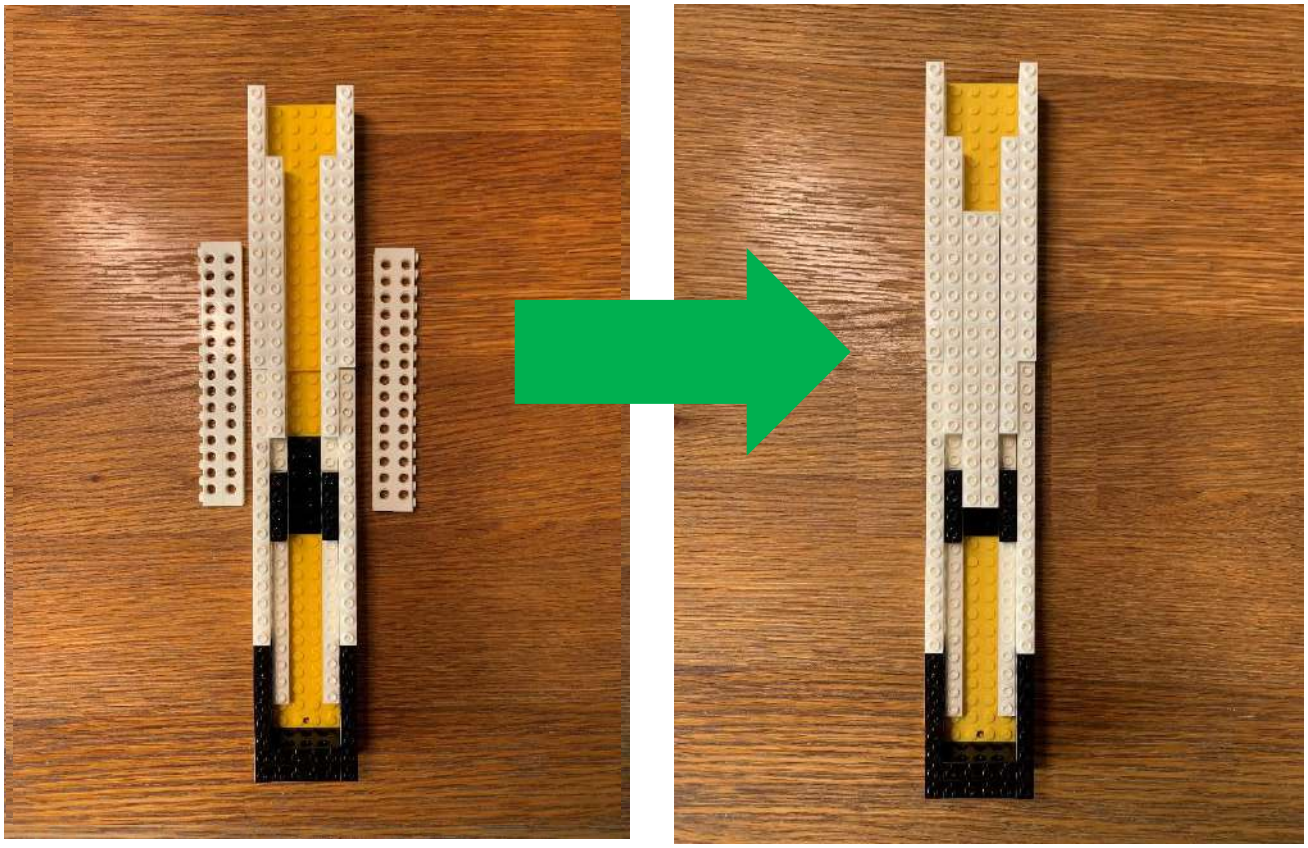


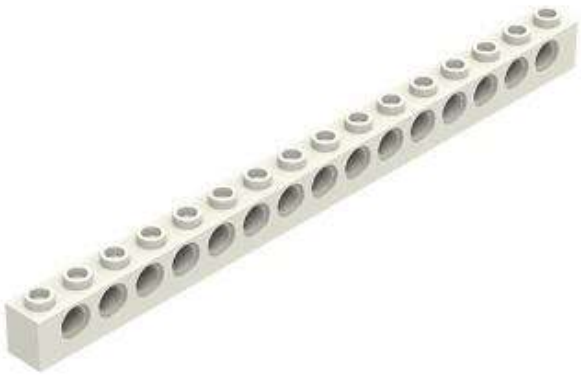
# Step 2

Build spine of the violin.

1/2 size spine

**Step 2h**



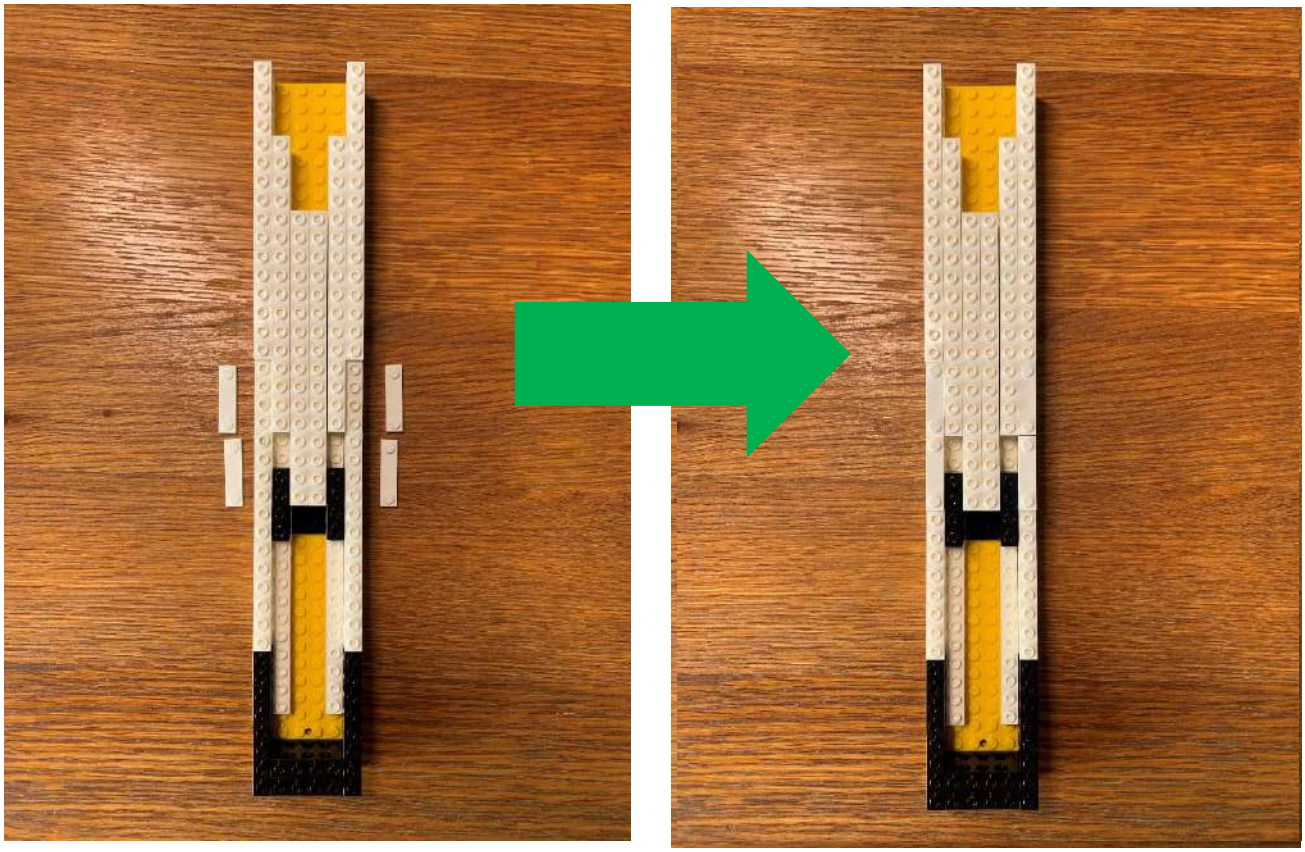


# Step 2

Build spine of the violin.

1/2 size spine

### Step 2i

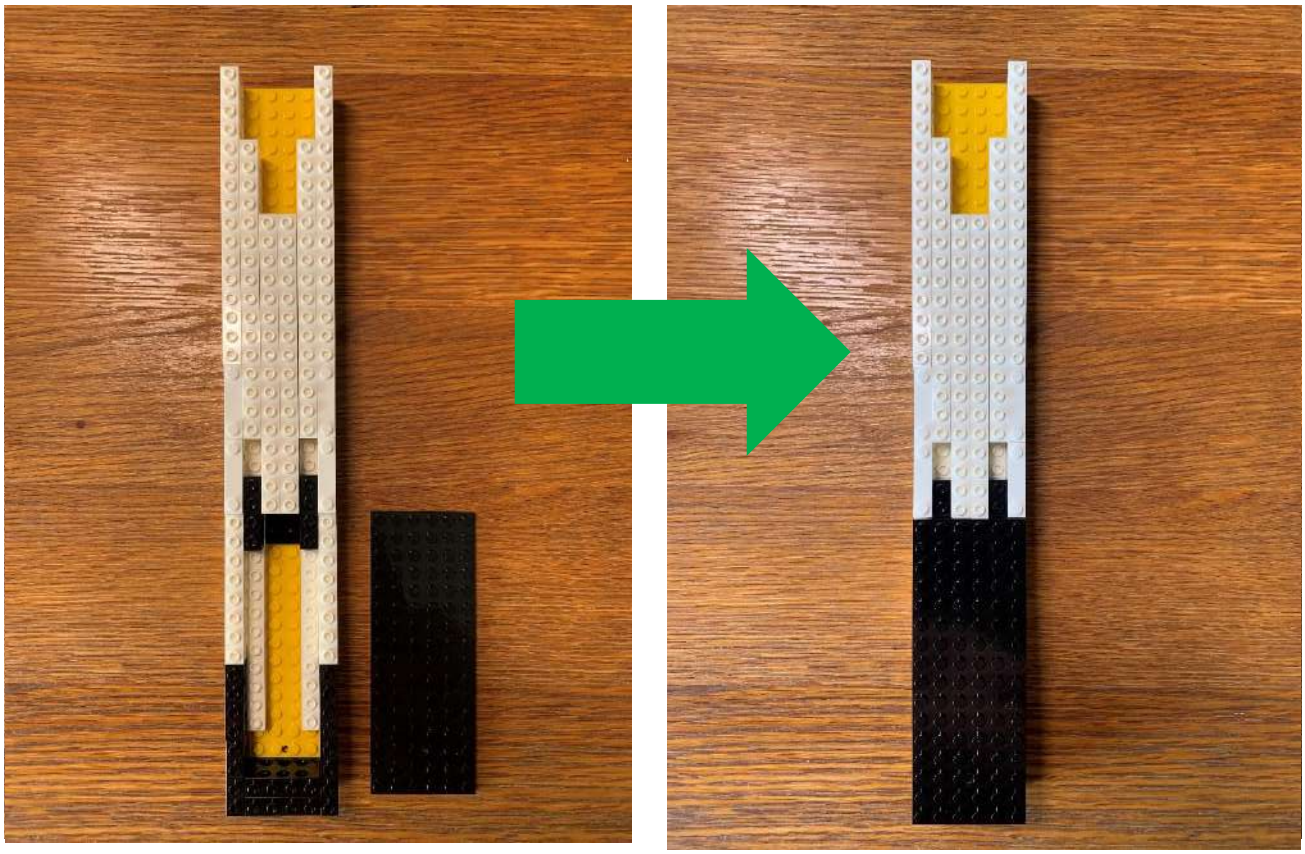


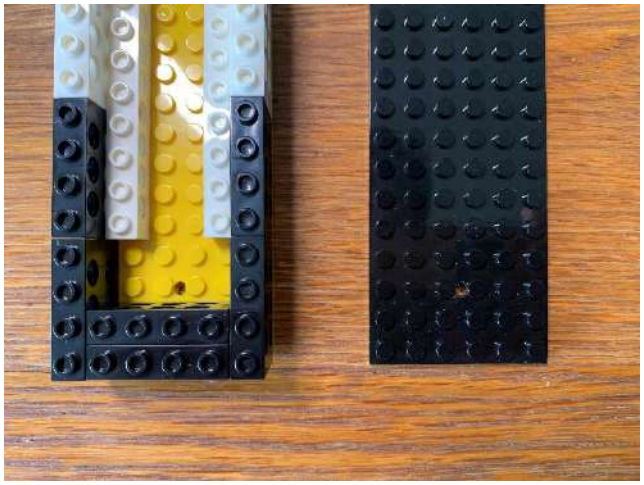
# Step 2

Build spine of the violin.

1/2 size spine

**Step 2j**





**Note:**

Make sure the bottom plate is the one with hole at the lower half ot the plate.

# Step 2

Build spine of the violin.

1/2 size spine

**Note:**

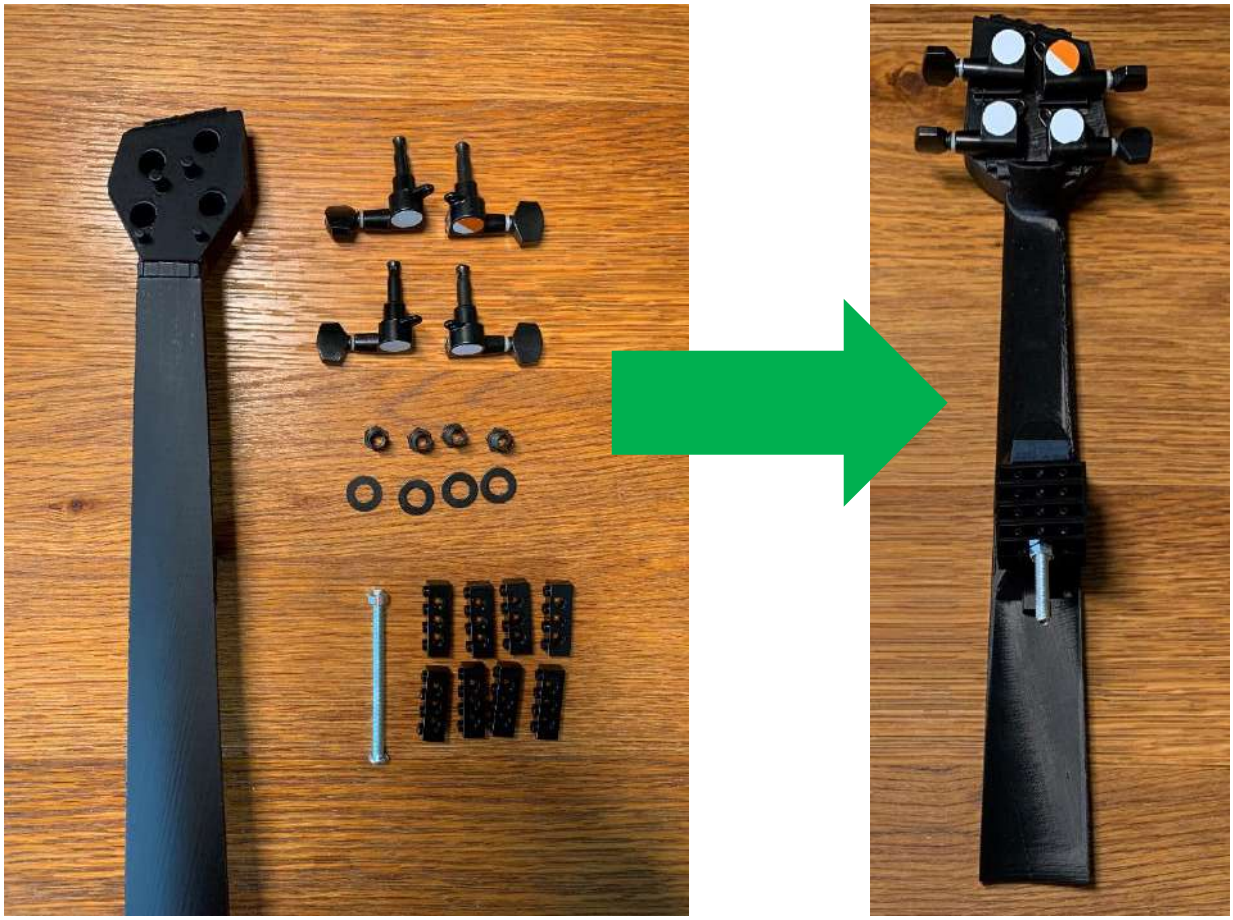
1/2 size spine is done, please go to page 39 for step 3

# Step 3

Build neck and tuning pegs of the violin.

**Note:**

In some packages, you may find the neck and tuning pegs already integrated. In that case, you can skip step 3.



# Step 3

Build neck and tuning pegs of the violin.

**Step 3a – install pegs**

Plug the 4 tuning pegs exactly the same as the image demonstrated below. Push the peg inwards hard to minimize the gap in between surfaces.

# Step 3

Build neck and tuning pegs of the violin.

**Step 3b – install pegs**

Install washers and nuts.
Tighten the nut.

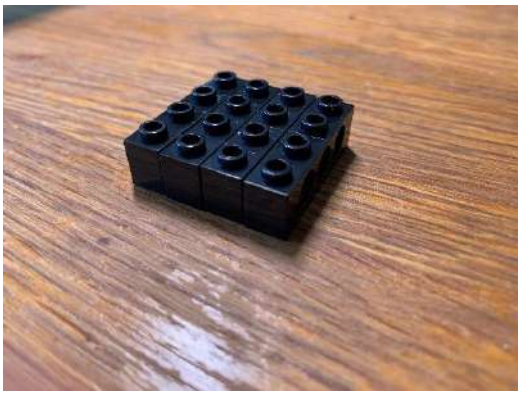
**Note:**

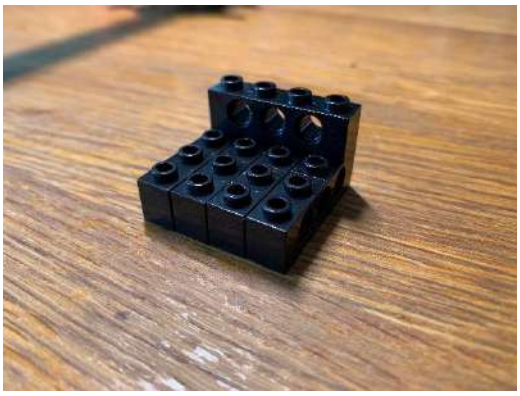
This tool maybe helpful when you tighten the nut.

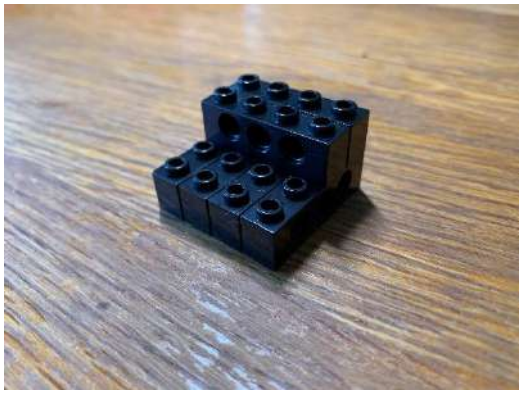
# Step 3

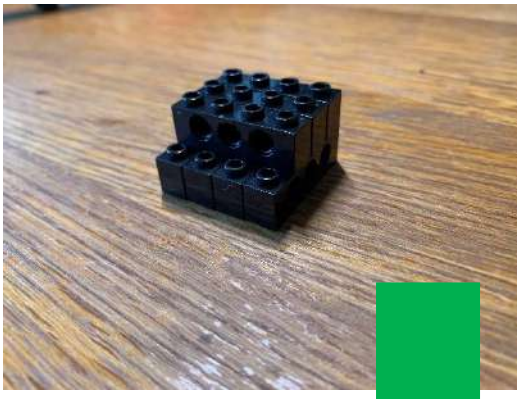
Build neck and tuning pegs of the violin.

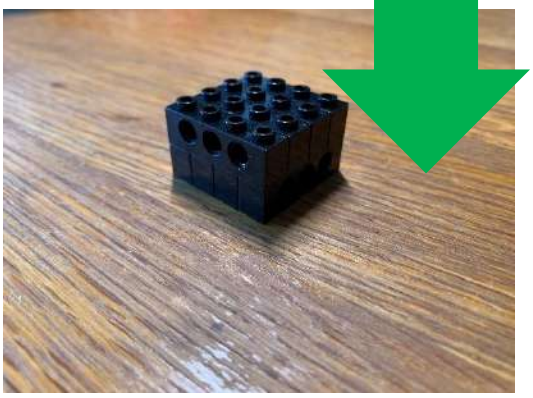
**Step 3c – building a square block for attachment**







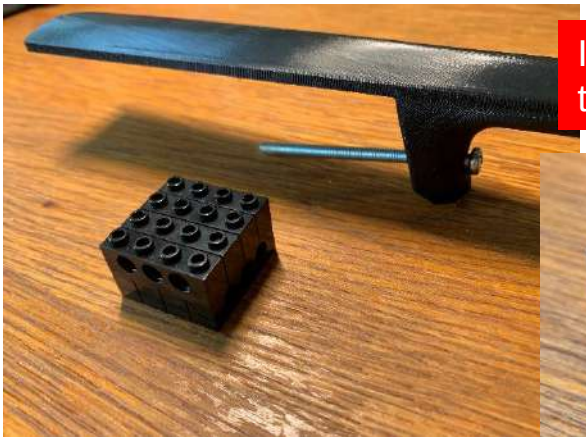




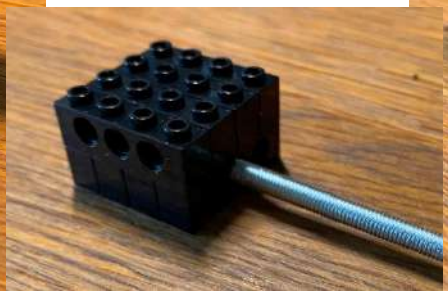
# Step 3

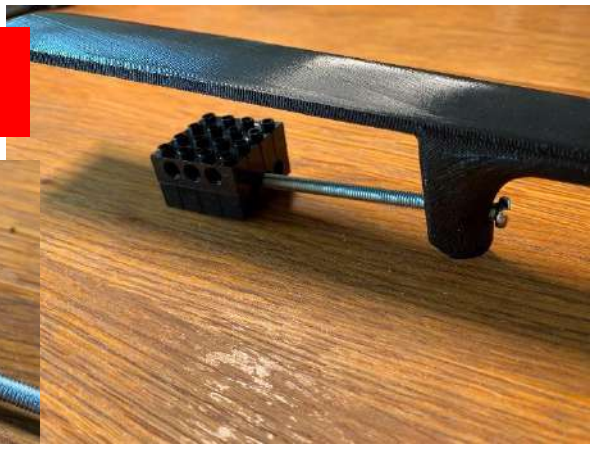
Build neck and tuning pegs of the violin.

**Step 3d – attach with screw**

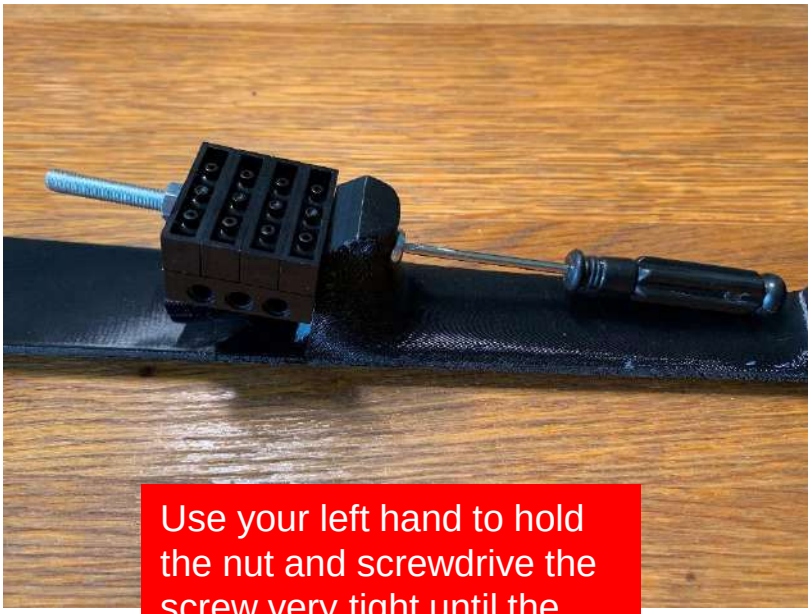


Insert the screw into the lower hole





Put on the nut



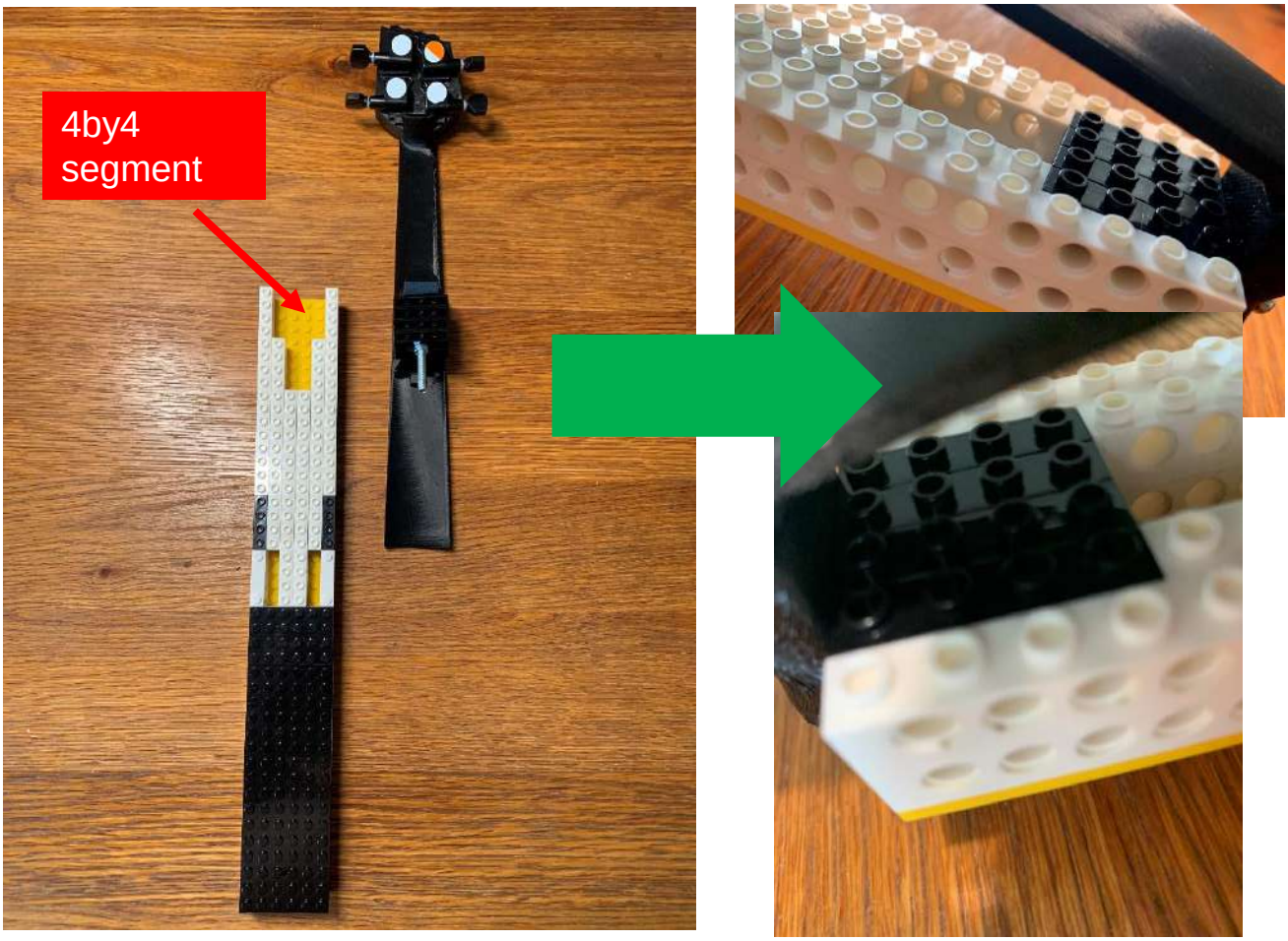
Use your left hand to hold the nut and screwdrive the screw very tight until the square block is firmly attached with violin neck.

# Step 4

Attach violin neck to violin spine

**Step 4a**

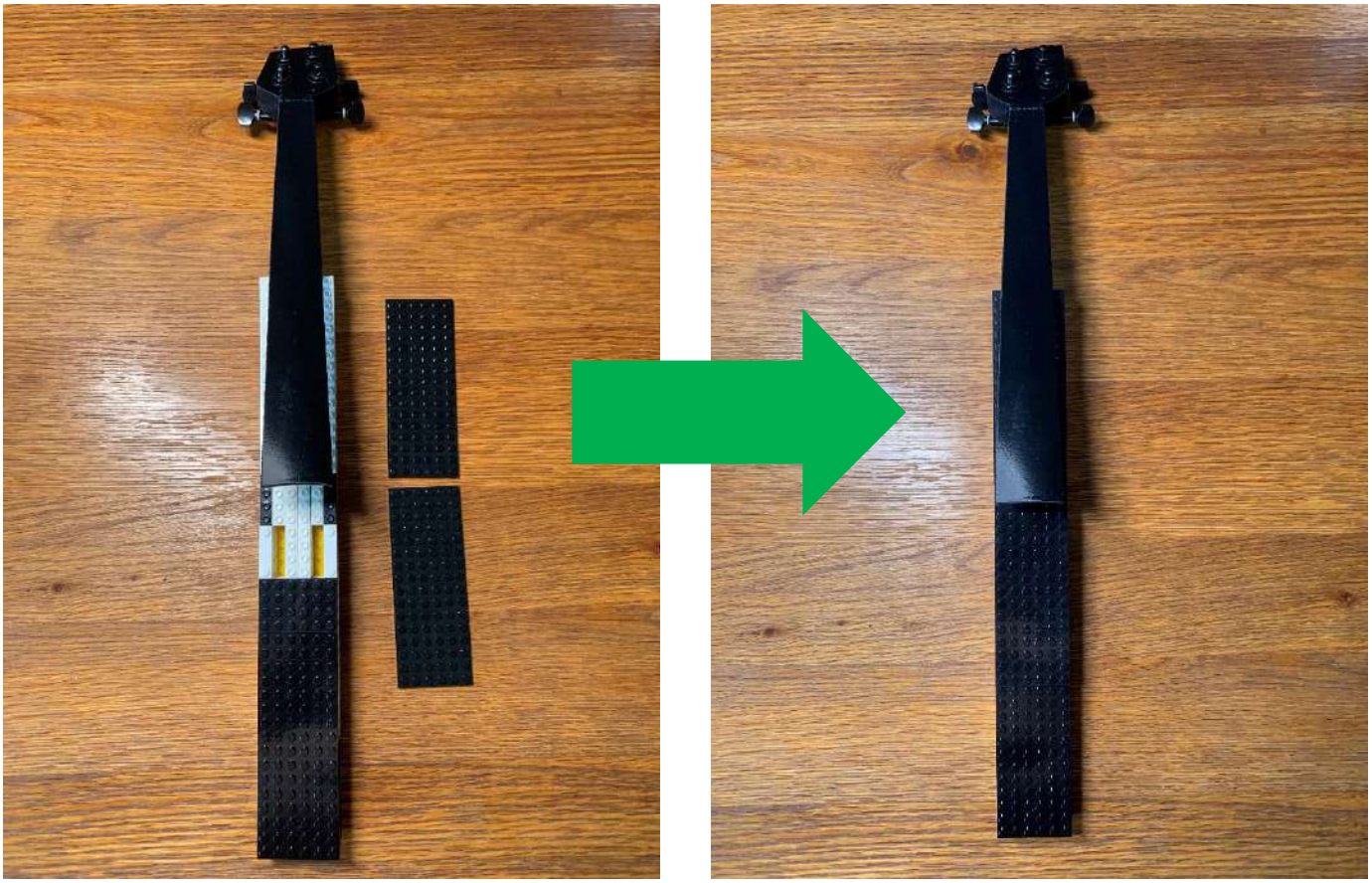
Put the square block of the violin neck into the 4 by 4 segment on top of the violin spine.

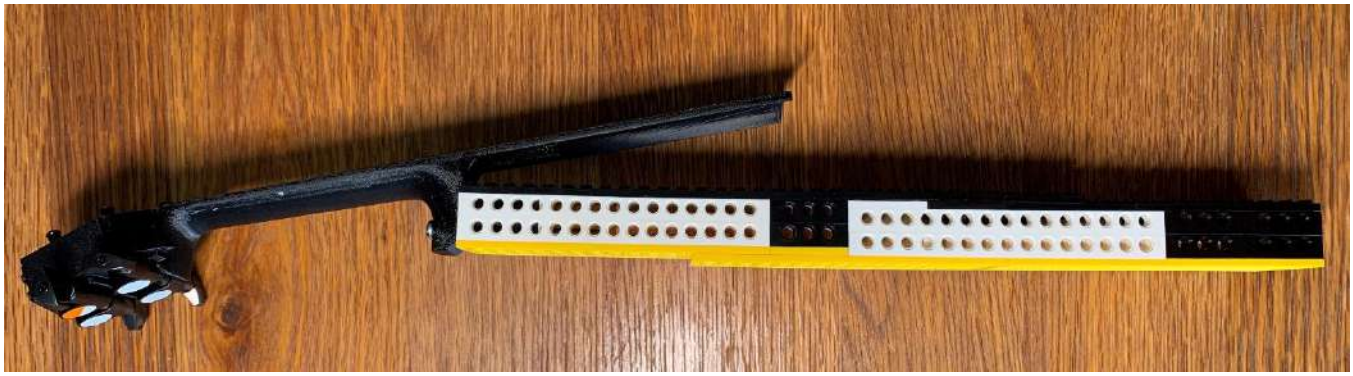



# Step 4

Attach violin neck to violin spine

### Step 4b



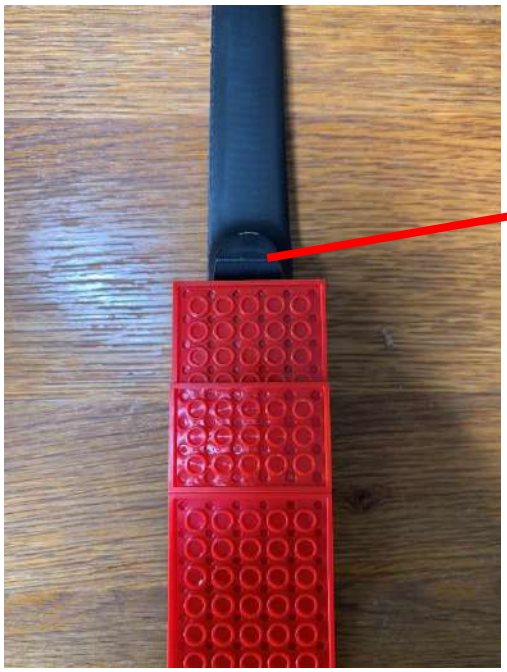


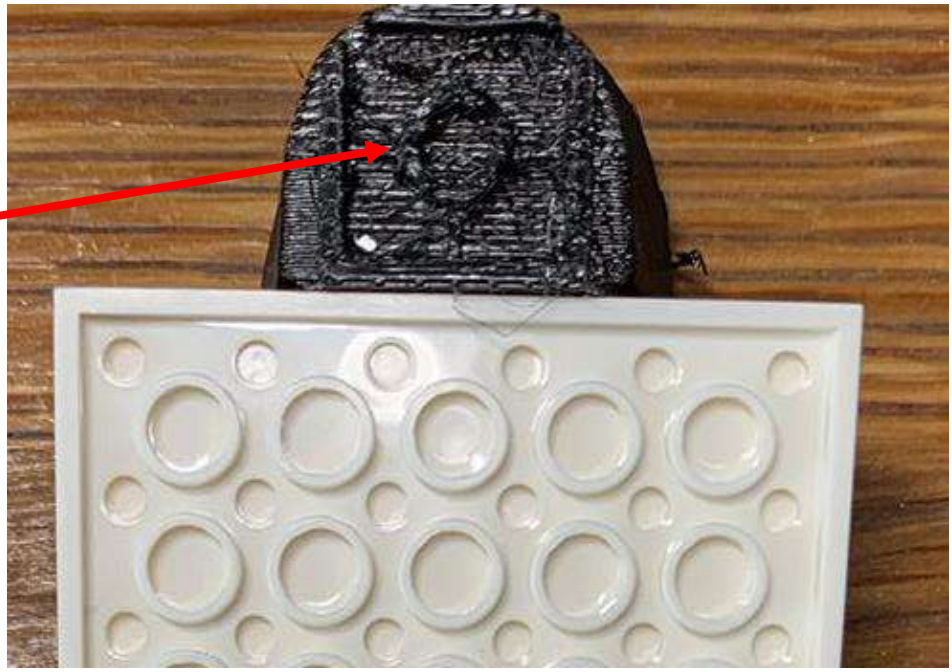
# Step 4

Lock violin neck to violin spine

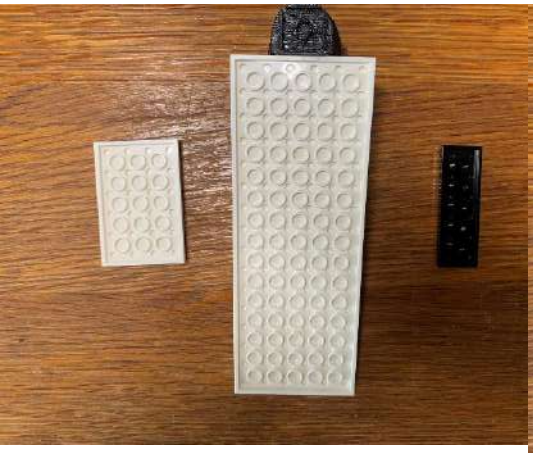
**Step 4c – optional**

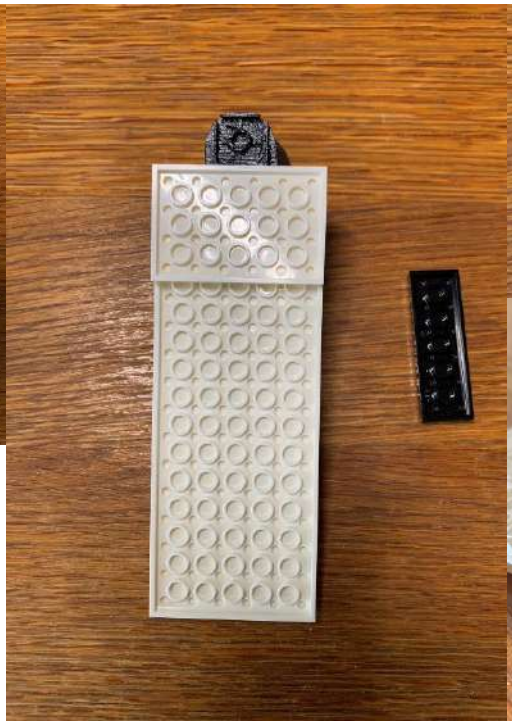
**In some versions of products, you may find the end of violin neck has 2*2 Lego plate**

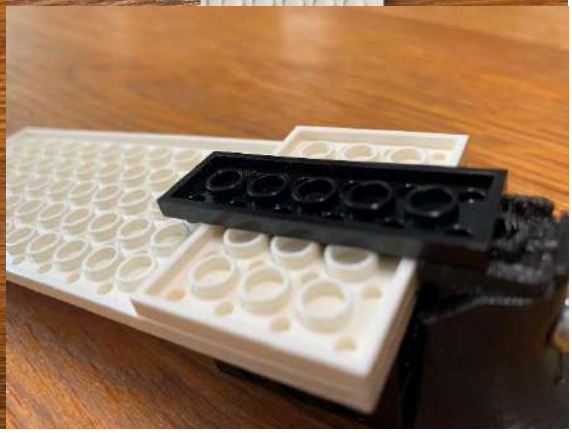




**In case of such, you can futher lock the neck and violin body as follow**





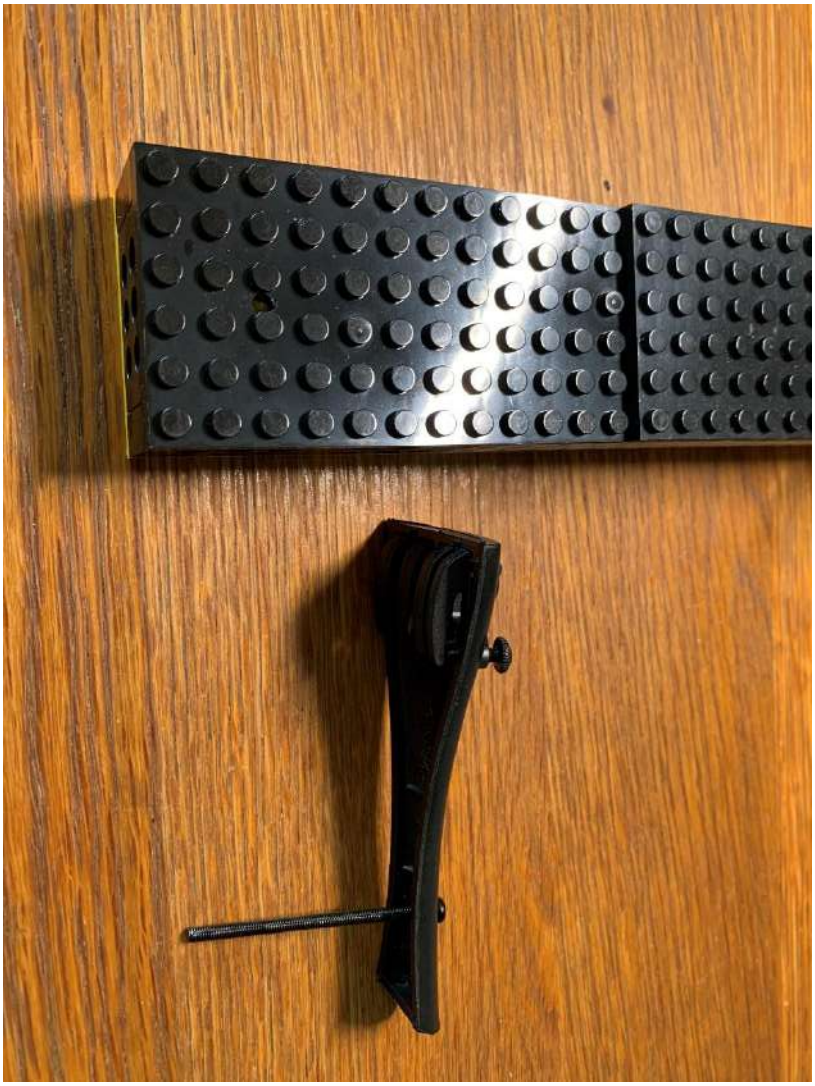


# Step 5

Attach tailpiece with violin spine

### Step 5a

Put the screw into the hole on tailpiece.

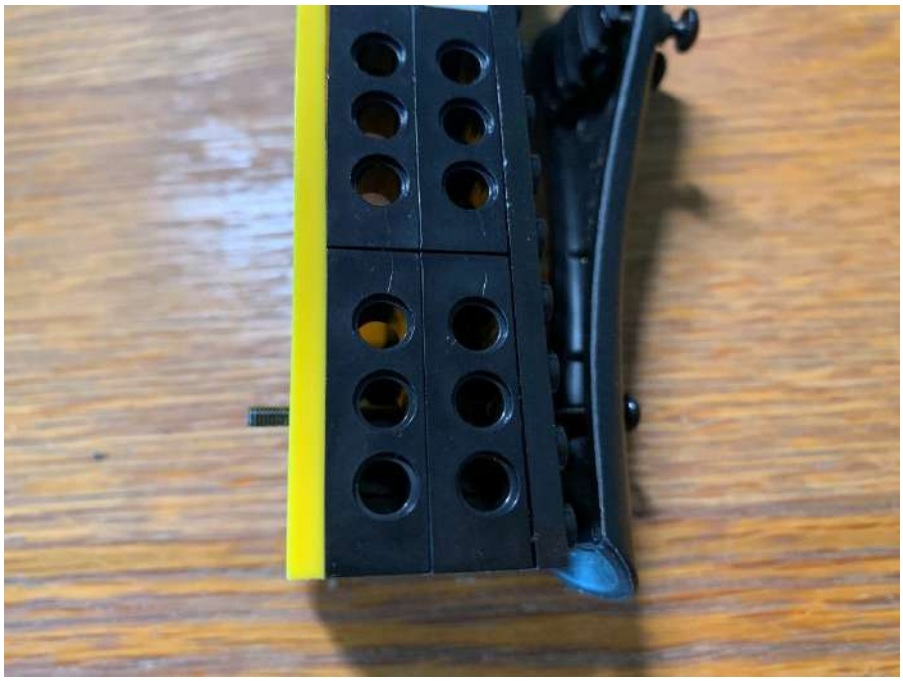


# Step 5

Attach tailpiece with violin spine

**Step 5b**

Put the screw with tailpiece into the hole located at bottom of the violin spine.



# Step 5

Attach tailpiece with violin spine

**Step 5c**

Put the round part through the screw and nut on top of them

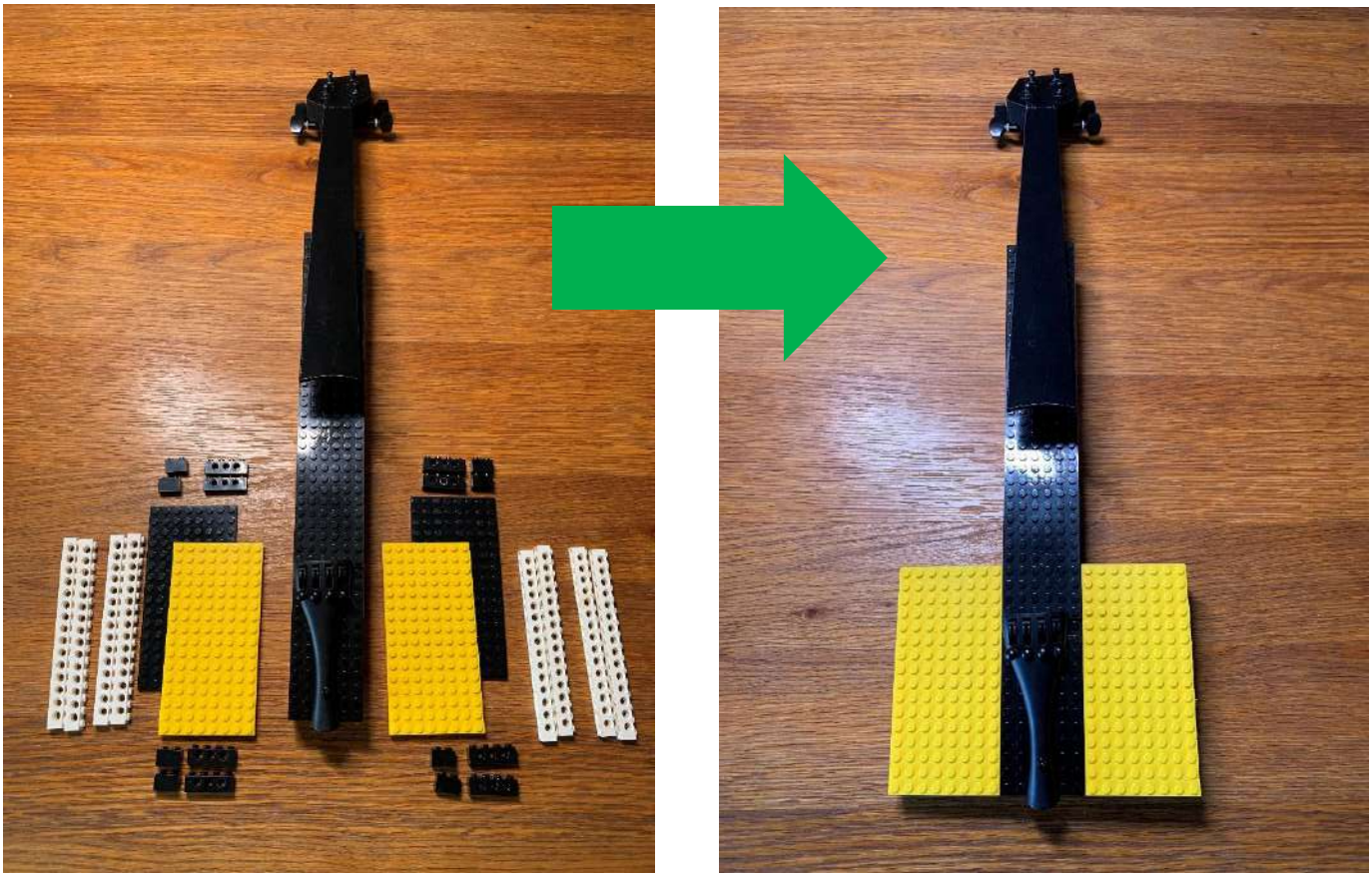

**Note:**

Please leave some space in between tailpiece and top surface.

You should be able to move the tailpiece and lift it up with some angle.

# Step 6

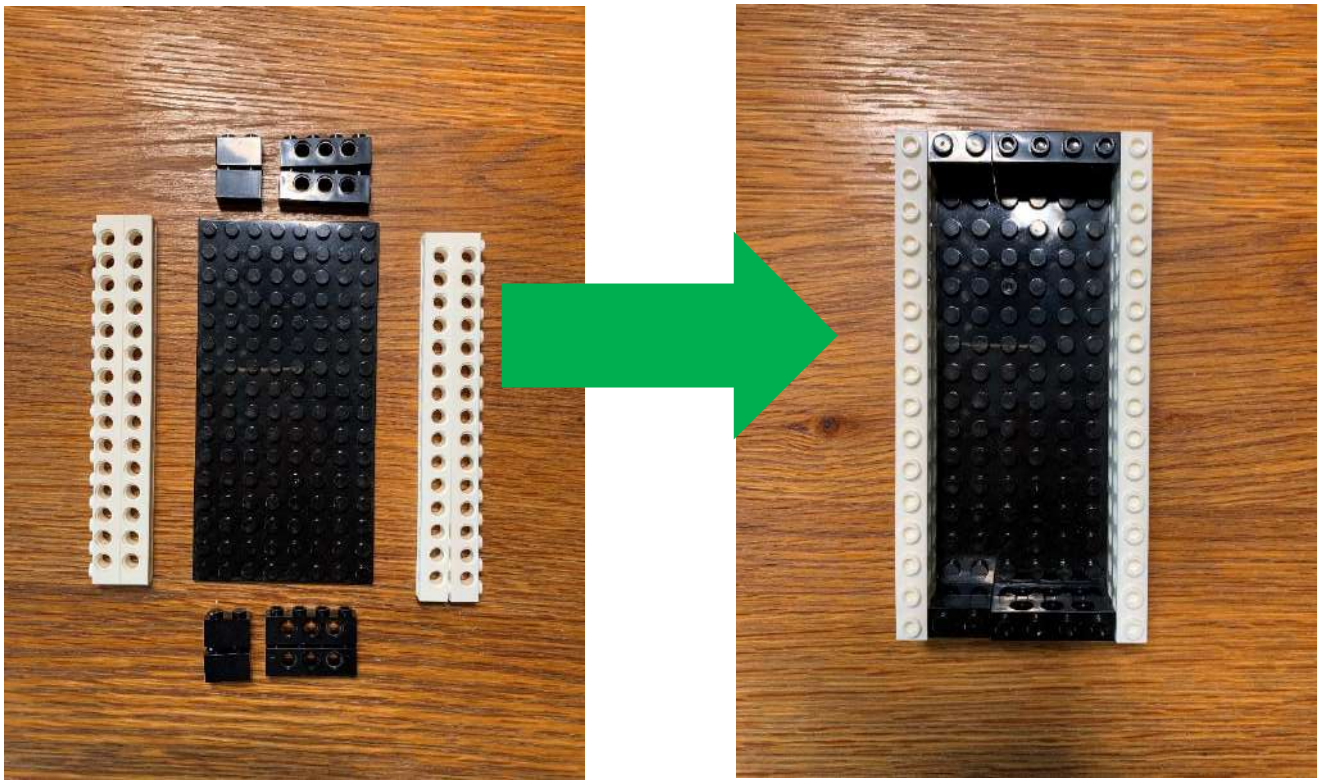
Attach side boxes to violin spine



# Step 6

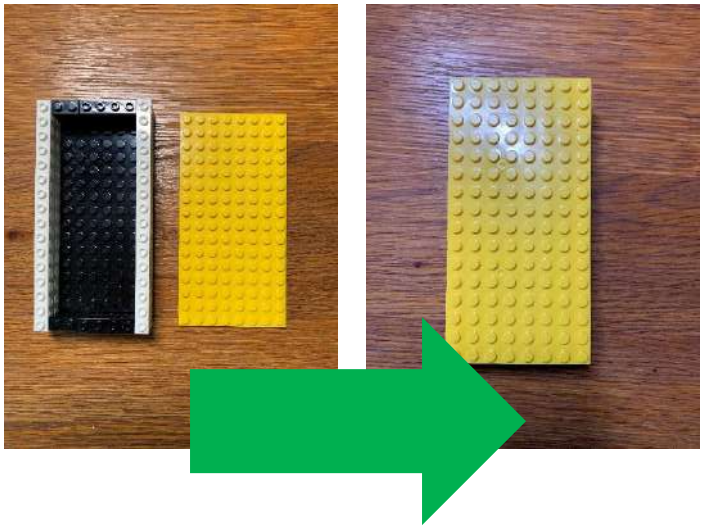
Attach side boxes to violin spine

**Step 6a**



**Note:**

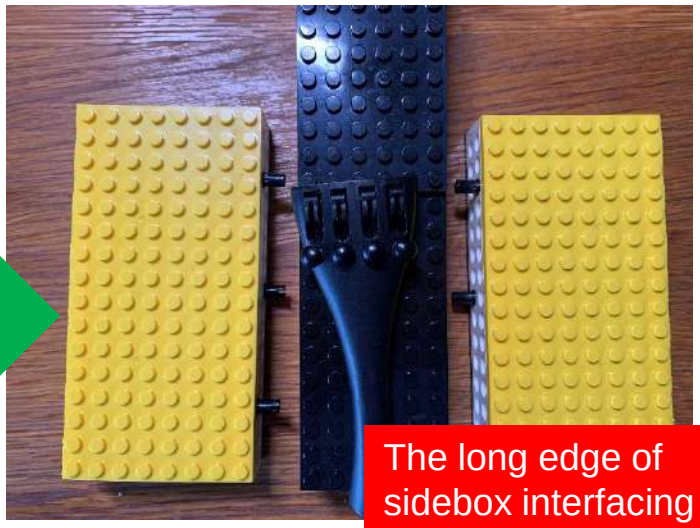
Repeat the same process again to build another side box.

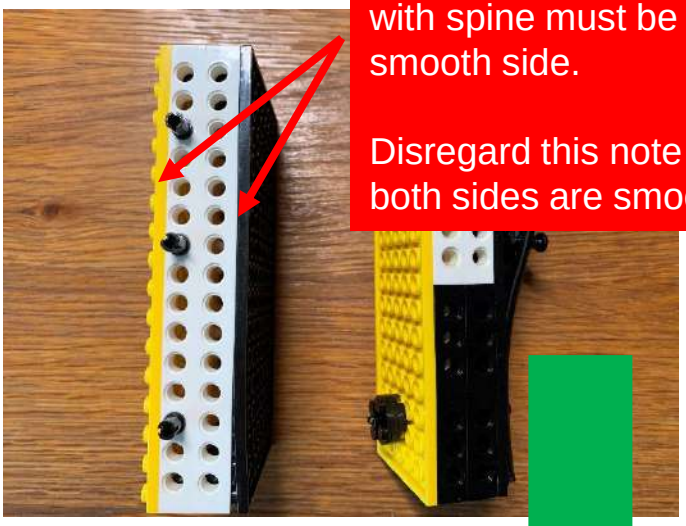


# Step 6

Attach side boxes to violin spine

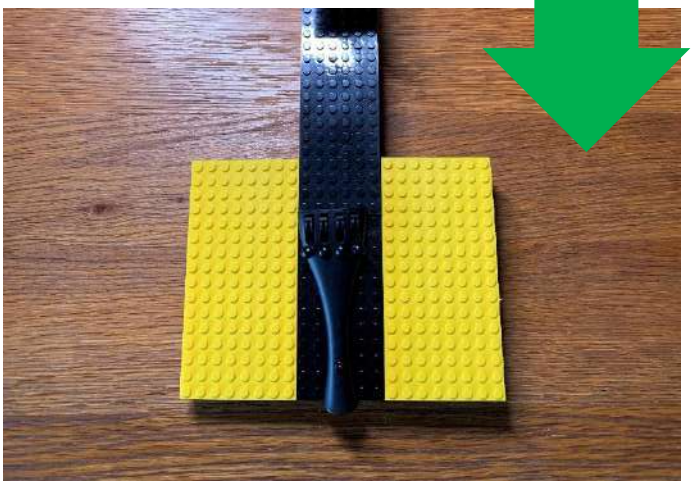
**Step 6b – attach side box**





The long edge of sidebox interfacing with spine must be the smooth side.

Disregard this note if both sides are smooth



**Note:**

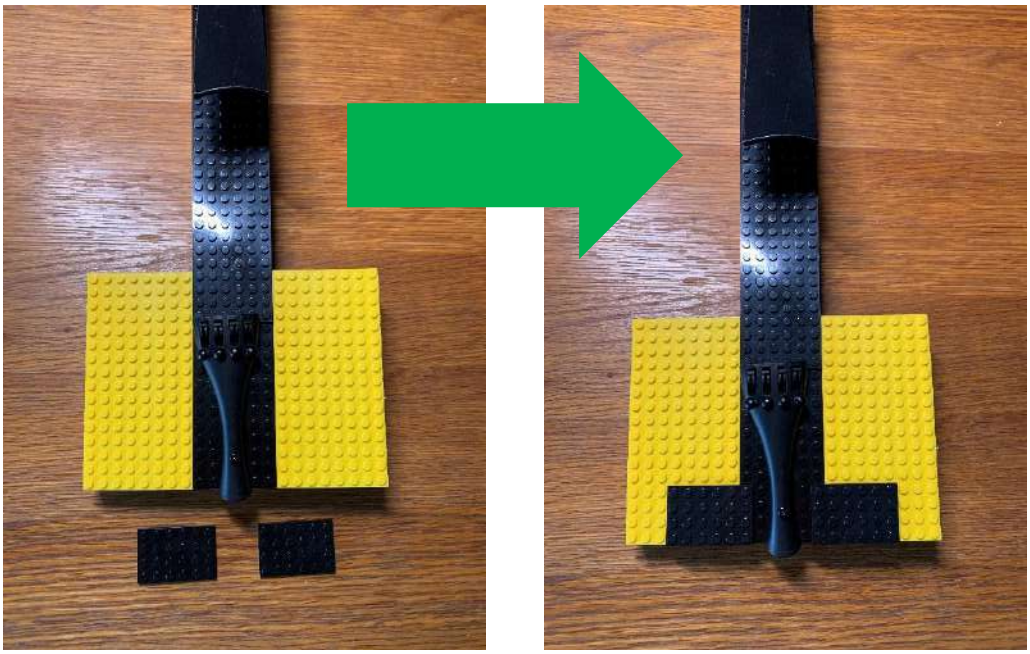
Put three sticks into the holes on each side of the side box, and then plug the box into the spine. Adjust position of the stick in case it can not be pushed in.

Make sure the bottom edge is aligned to the spine.

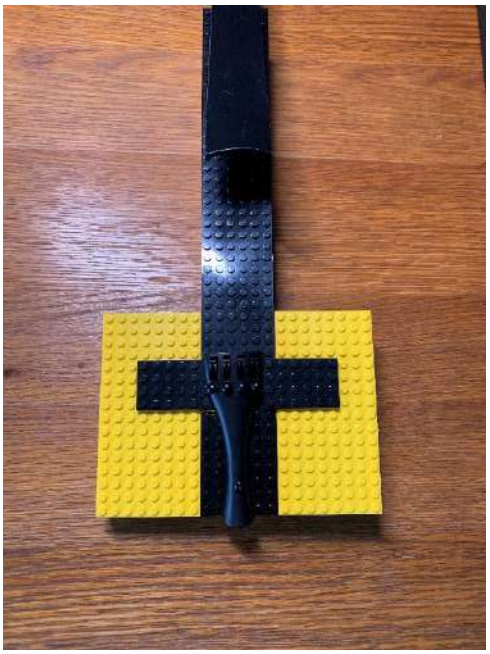
# Step 7

Lock side boxes to violin spine

**Step 7a – front lock option 1**



**option 2**

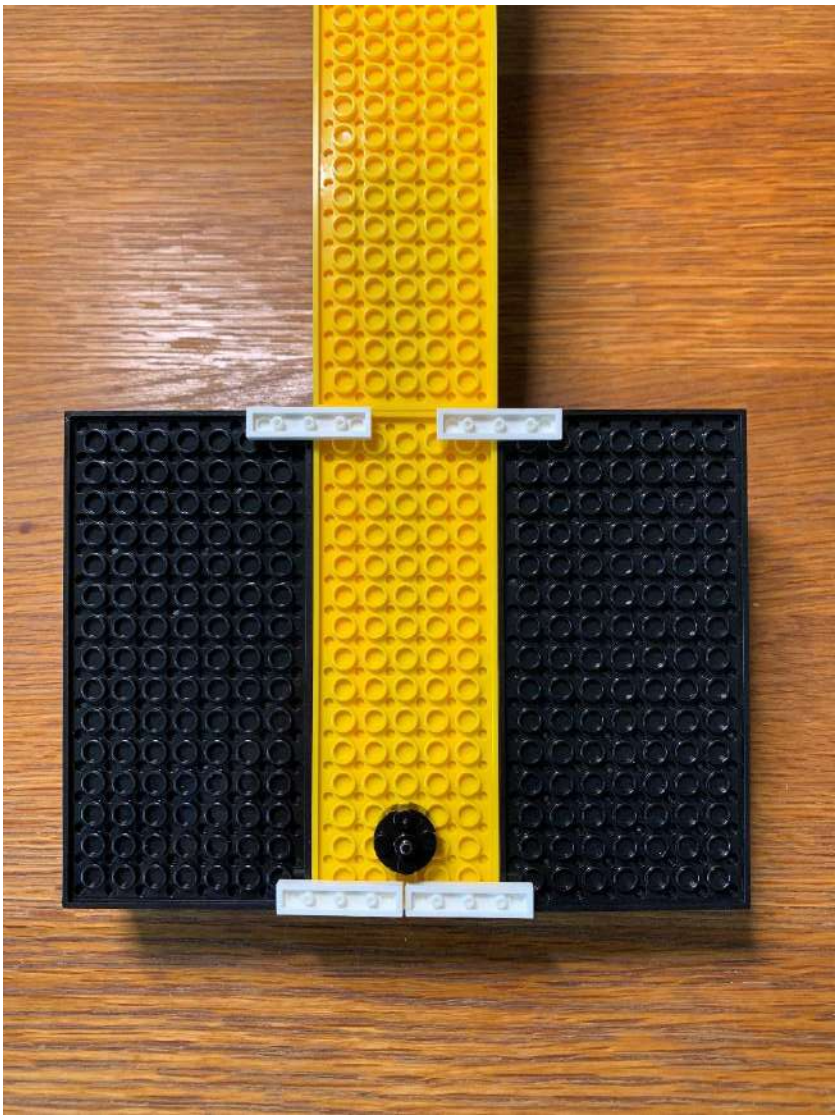


**option 3 – use other color plate to lock**

# Step 7

Lock side boxes to violin spine

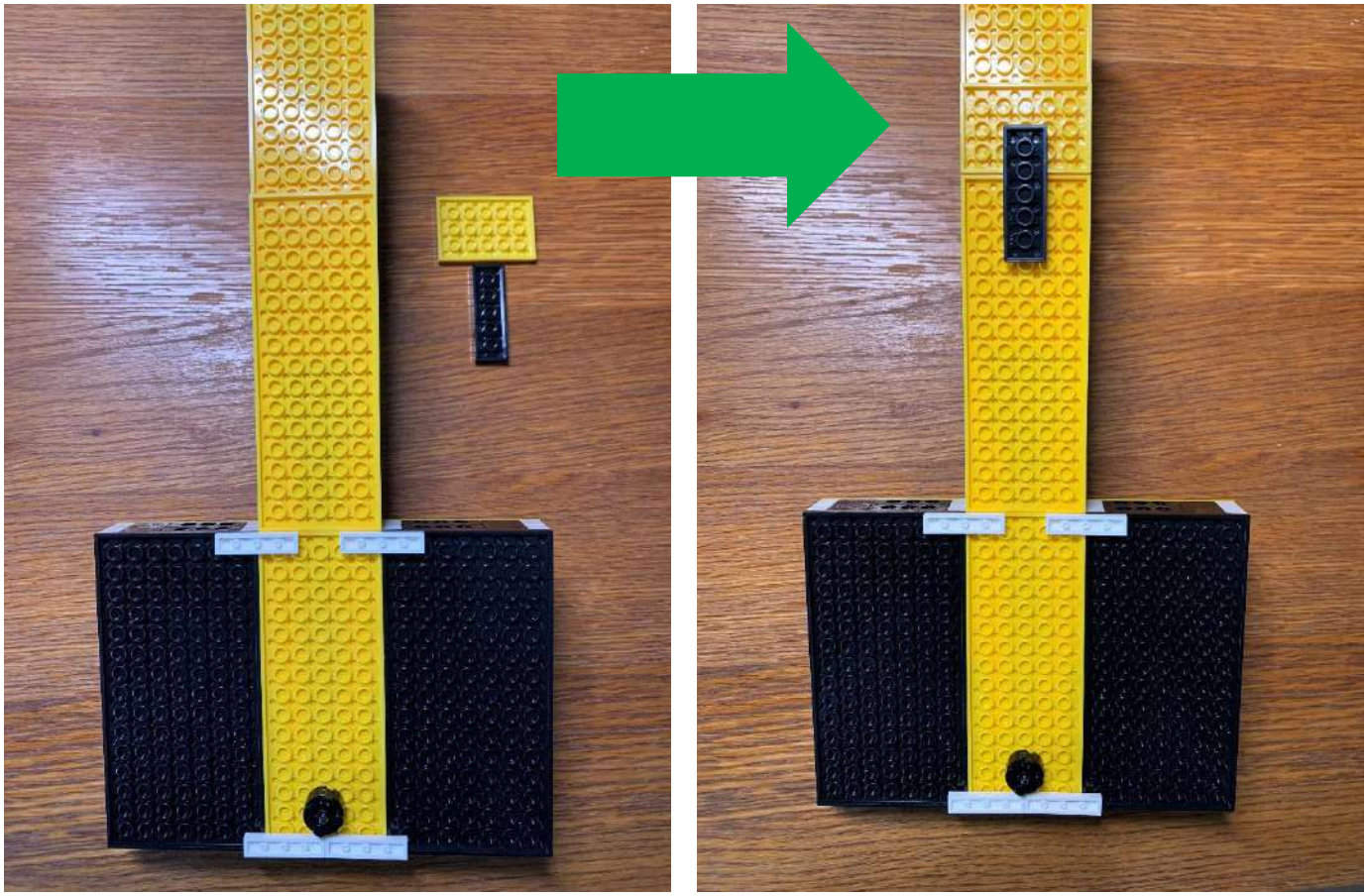
**Step 7b – back lock**



# Step 7

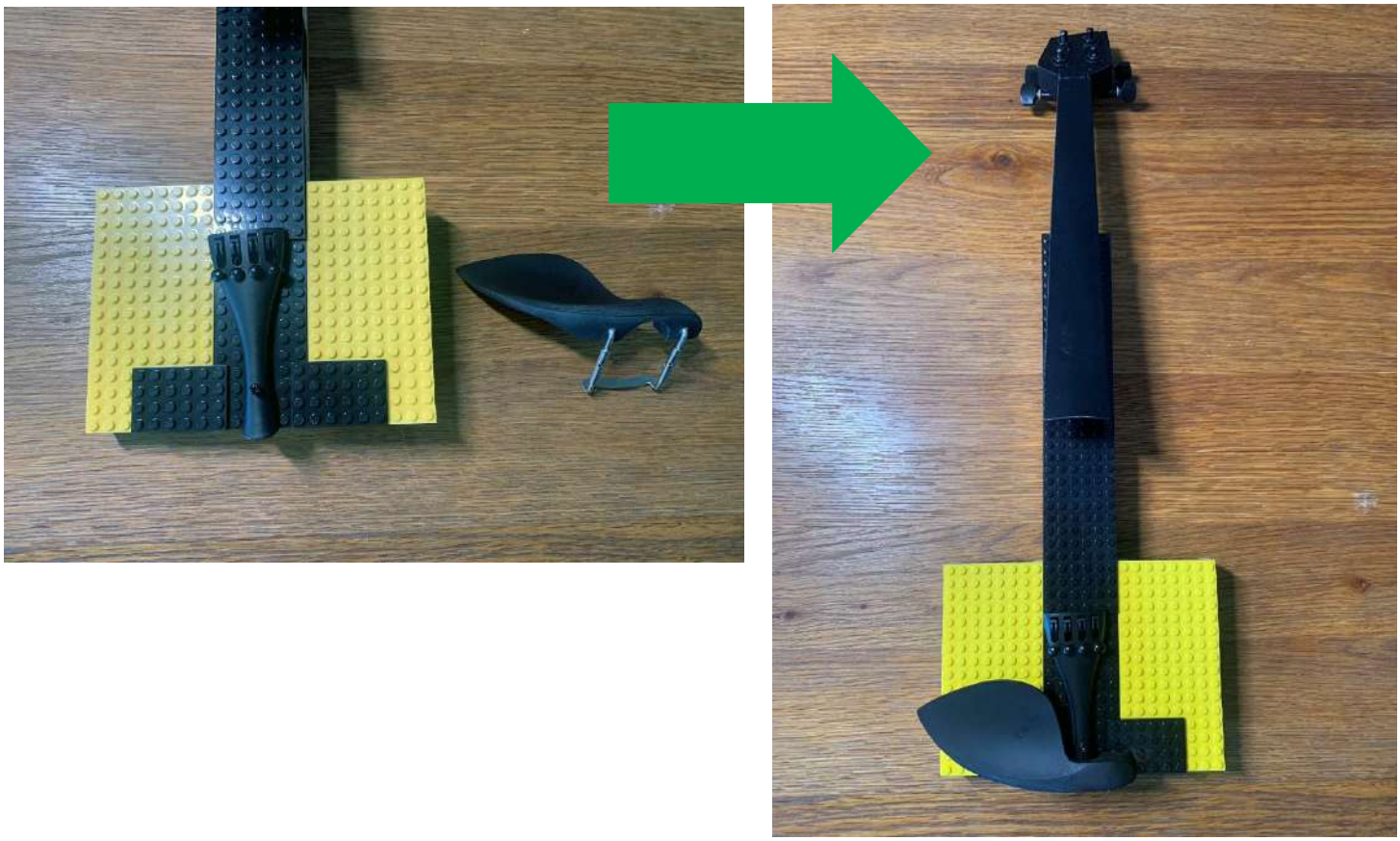
Lock side boxes to violin spine

**Step 7b – back lock**



# Step 8

Attach chinrest to violin body

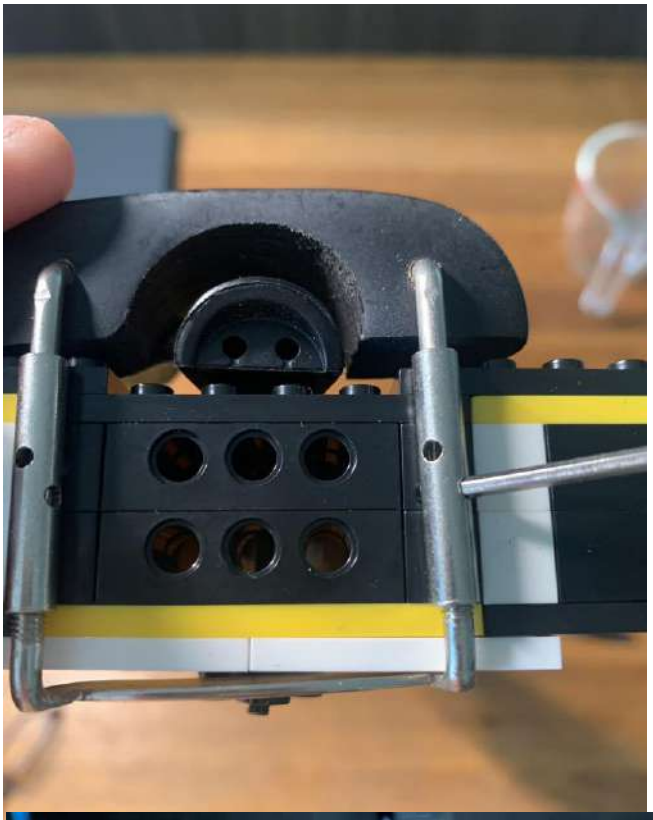


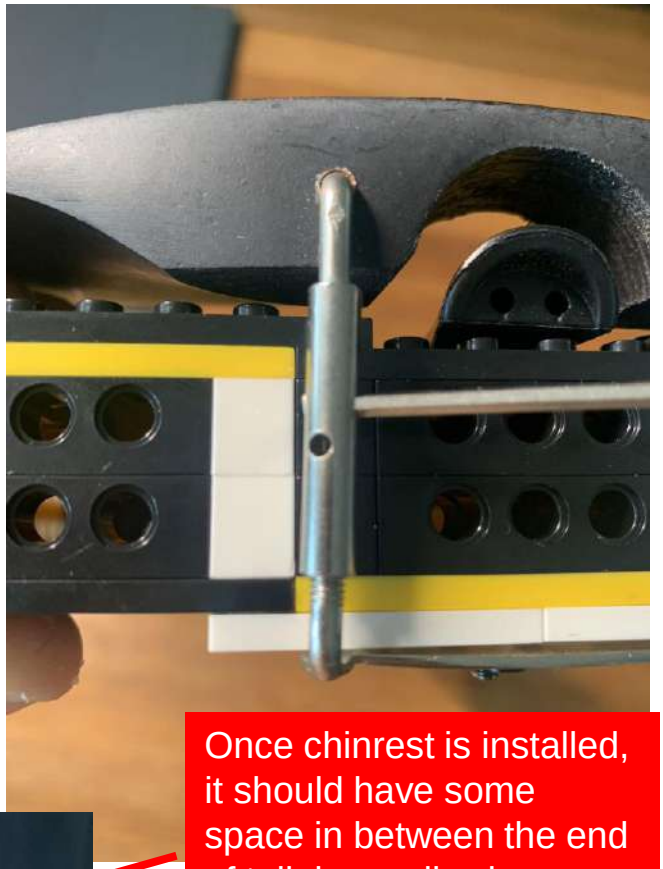
# Step 8

Attach chinrest to violin body

**Step 8a**

Place the chinrest to the bottome of the spine, align in the middle.
Use the small screwdriver, put one side in the hole and rotate clock-wise.
Change to another hole and do the same until it is very tight.





Once chinrest is installed, it should have some space in between the end of tailpiece, allowing tailpiece to lift up with some angle

Use the following part to create the space if needed

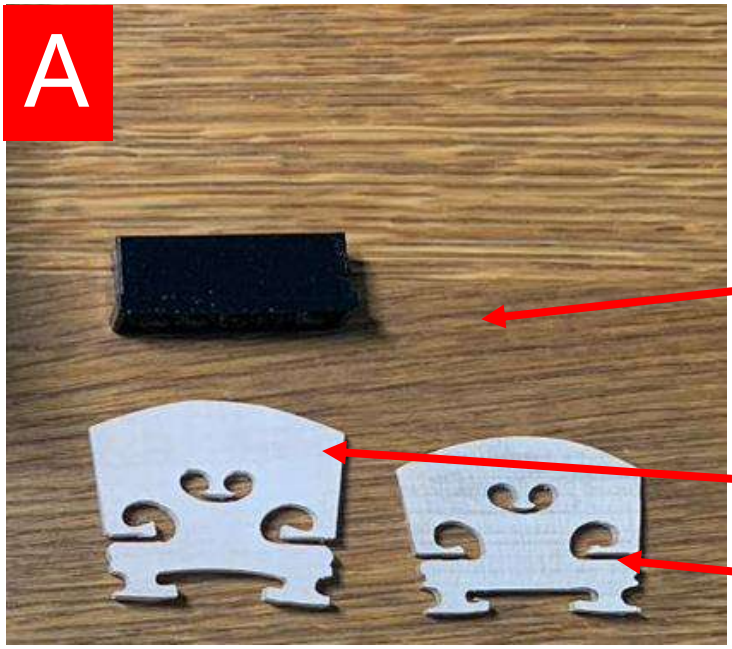
# Step 9 – No soundbox

Attach bridge/soundbox to violin body

**Note:**

**You product may contain bridge set of one of the following option A or B**
**In case your package includes soundbox, please go to page 61**

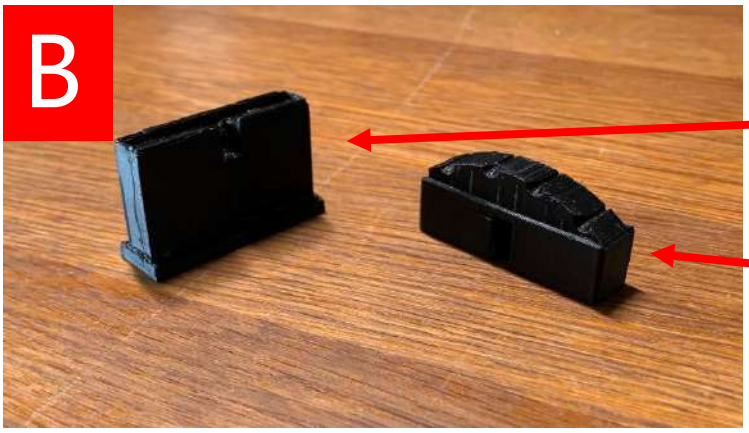
A



Bridge holder

Two bridges are included, please use the larger one by default

B



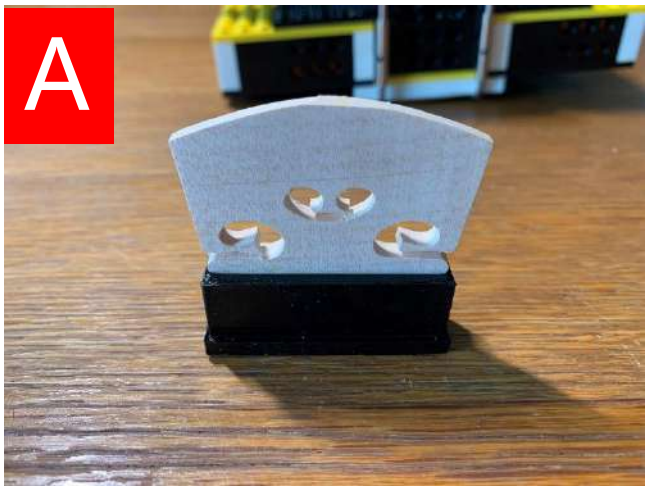
Bridge base

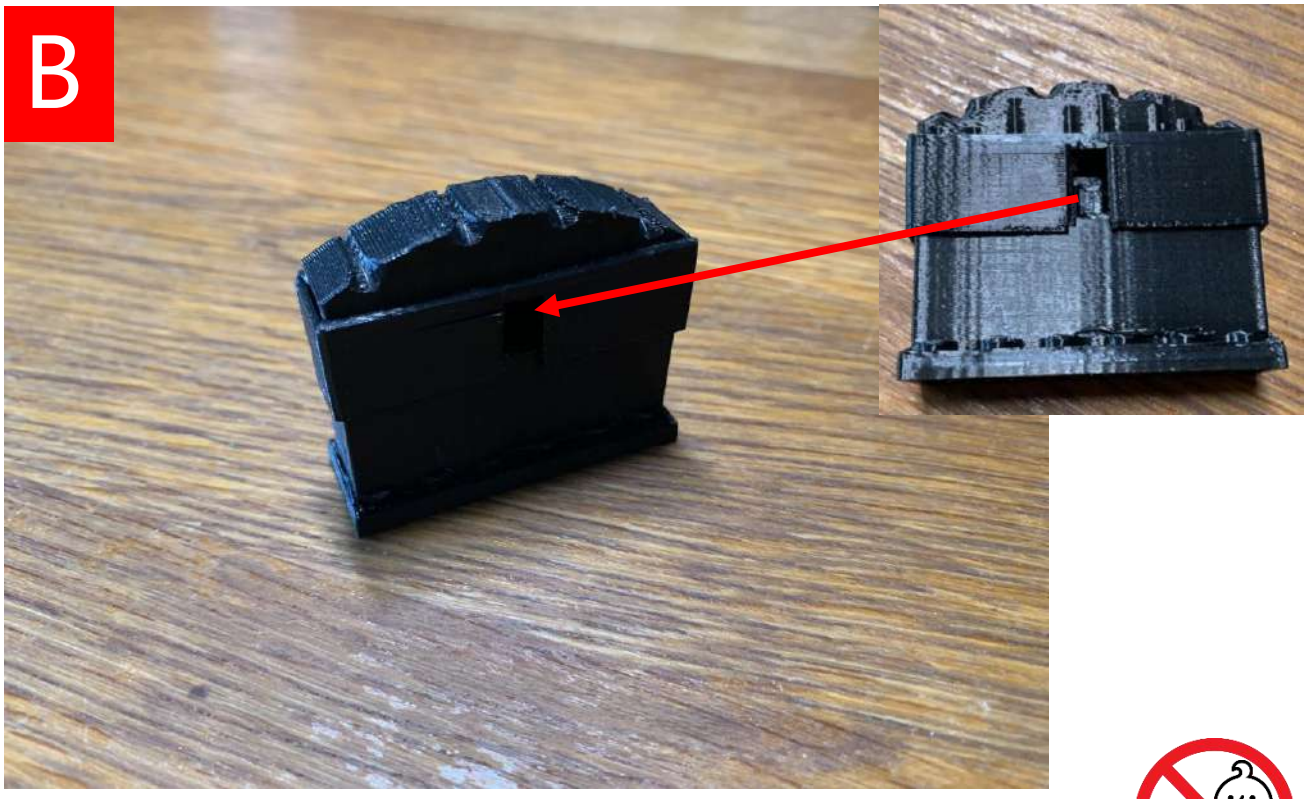
Bridge lid

# Step 9 – No soundbox

Attach bridge/soundbox to violin body

Place bridge into the bridge holder and put it on top of the spine

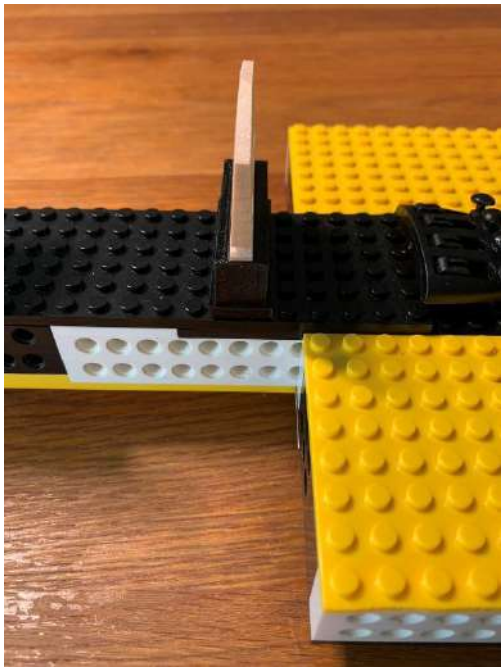



# Step 9 – No soundbox

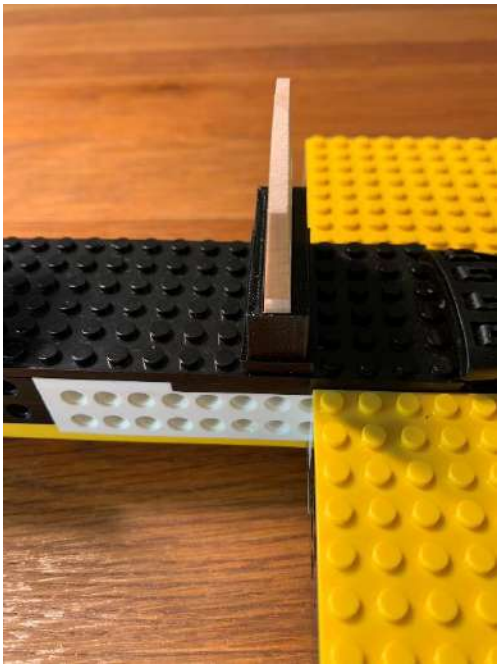
Attach bridge/soundbox to violin body

Postion of violin bridge varies from sizes



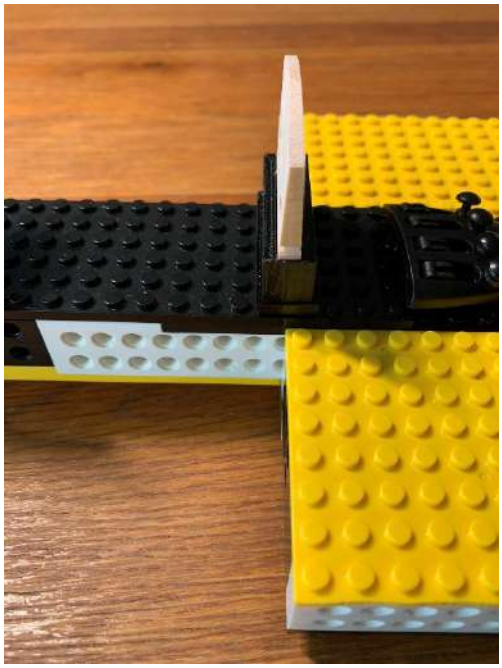
4/4 size

1 stud to the Yellow edge



3/4 size

0 stud to the Yellow edge



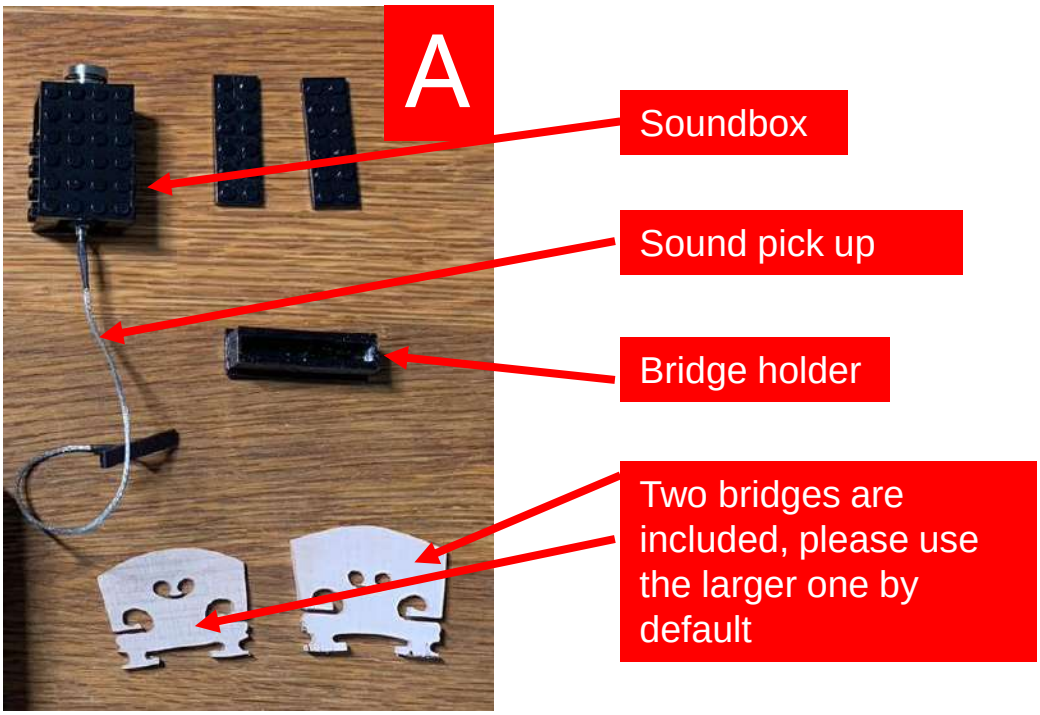
1/2 size

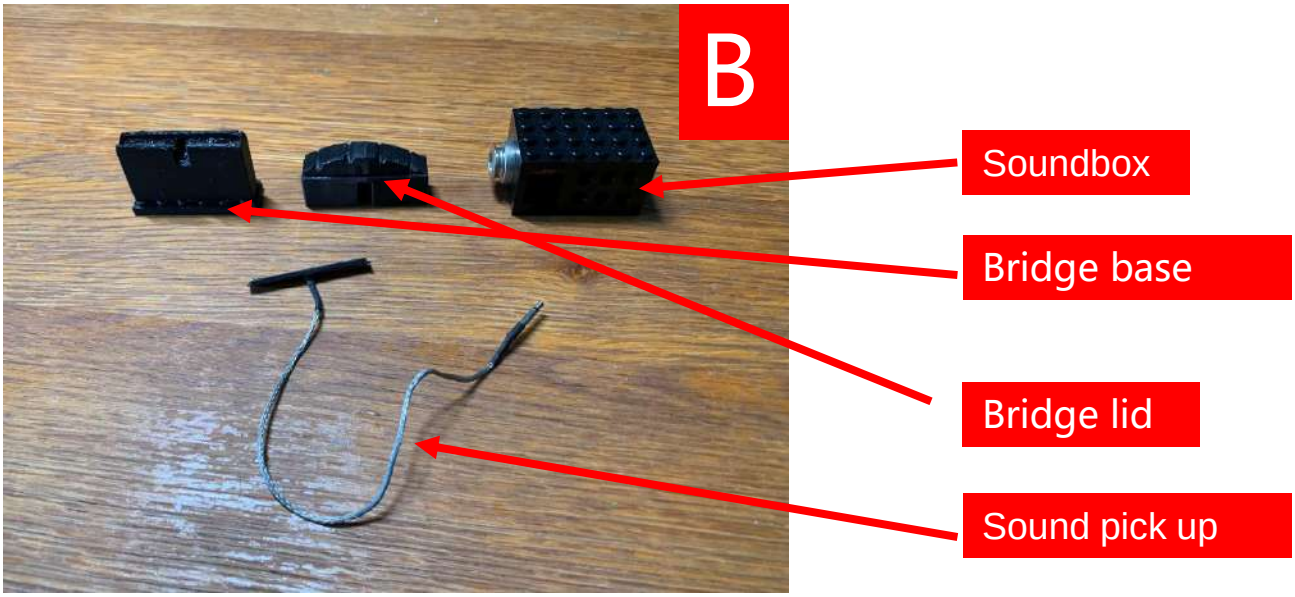
-1 stud to the Yellow edge

# Step 9 – With soundbox

Attach bridge/soundbox to violin body

**Install bridge with soundbox**

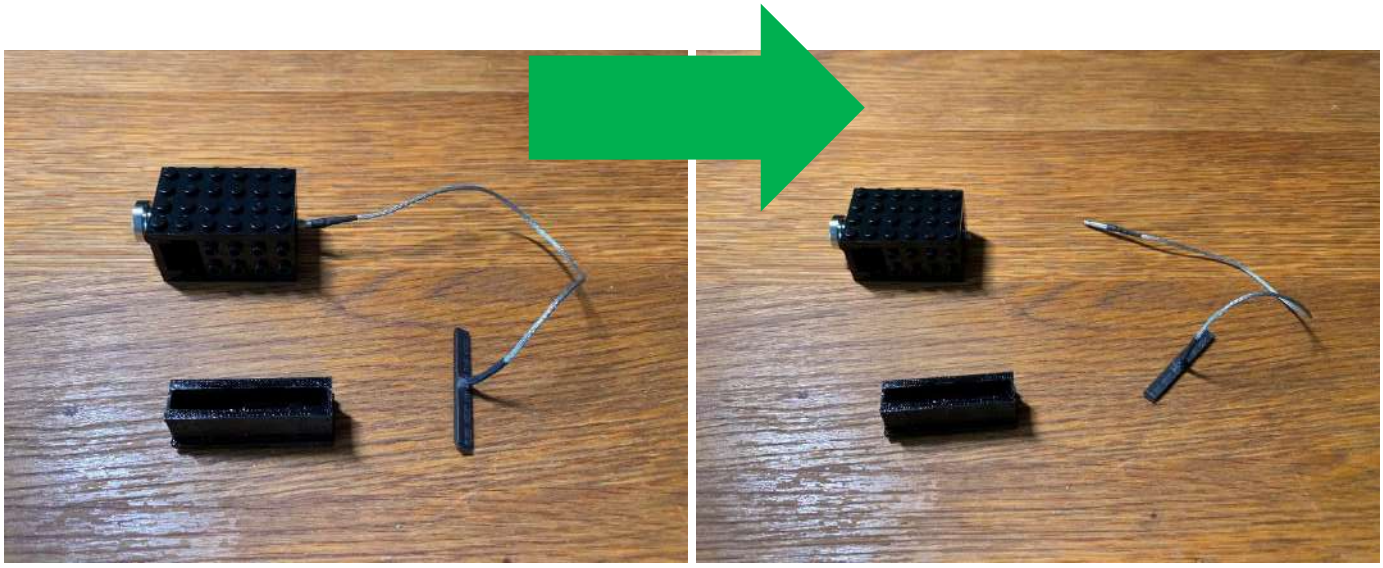


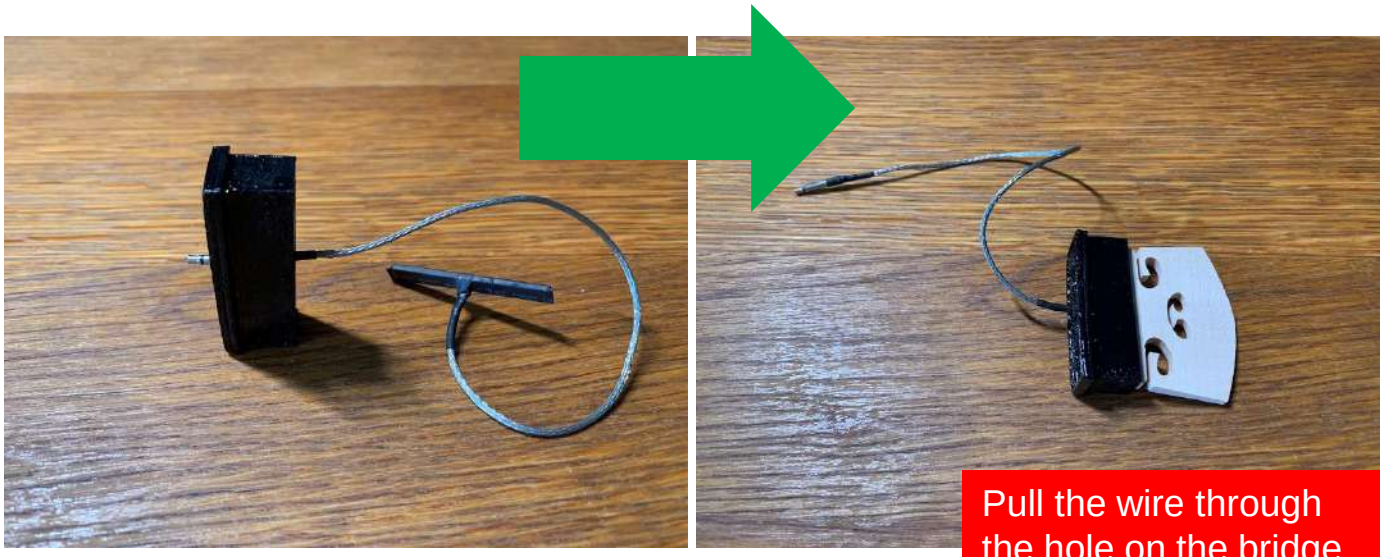




# Step 9

Attach bridge/soundbox to violin body

**Step 9a**



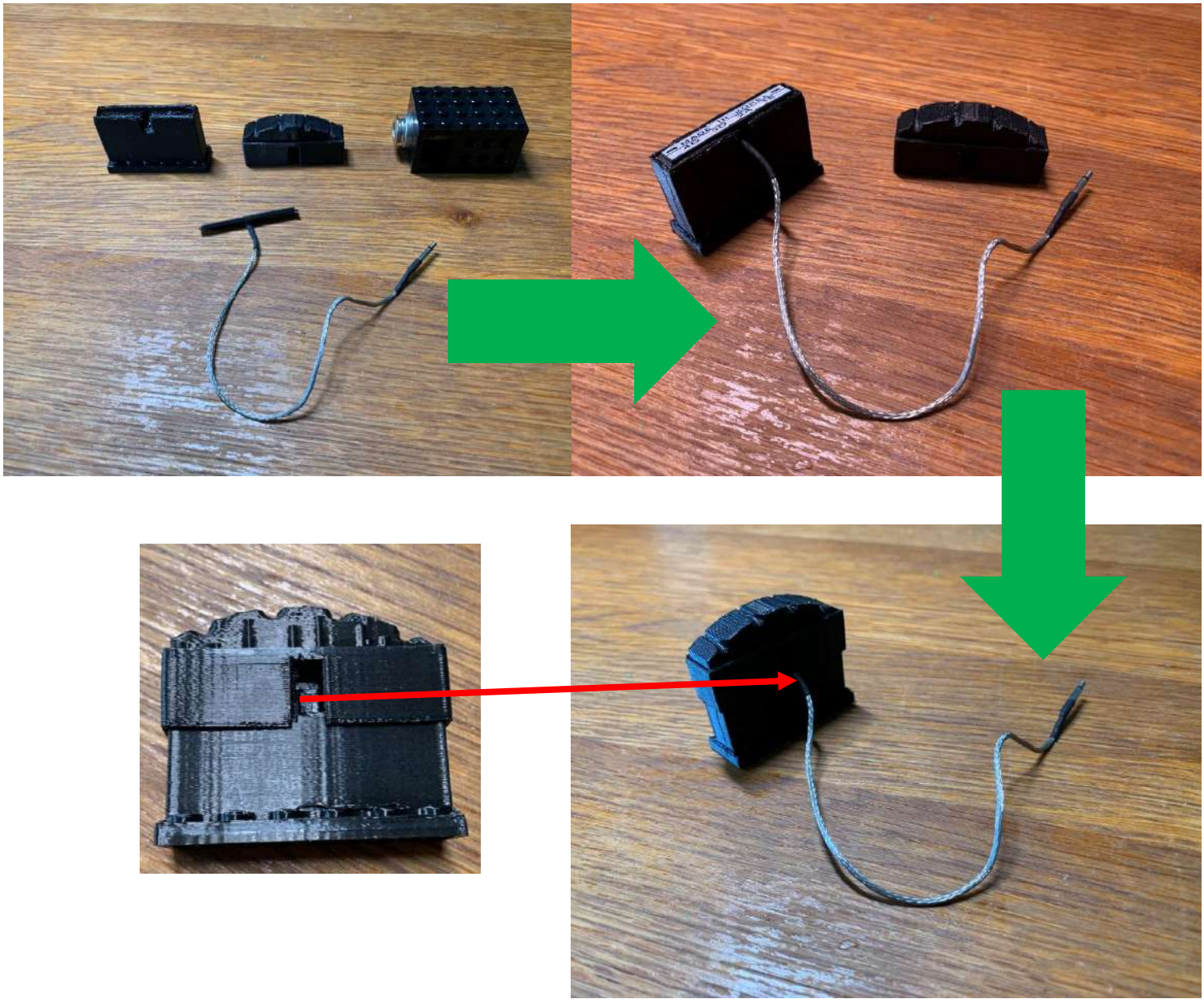


Pull the wire through the hole on the bridge holder,pull it to the end and place bridge in side the holder

# Step 9

Attach bridge/soundbox to violin body

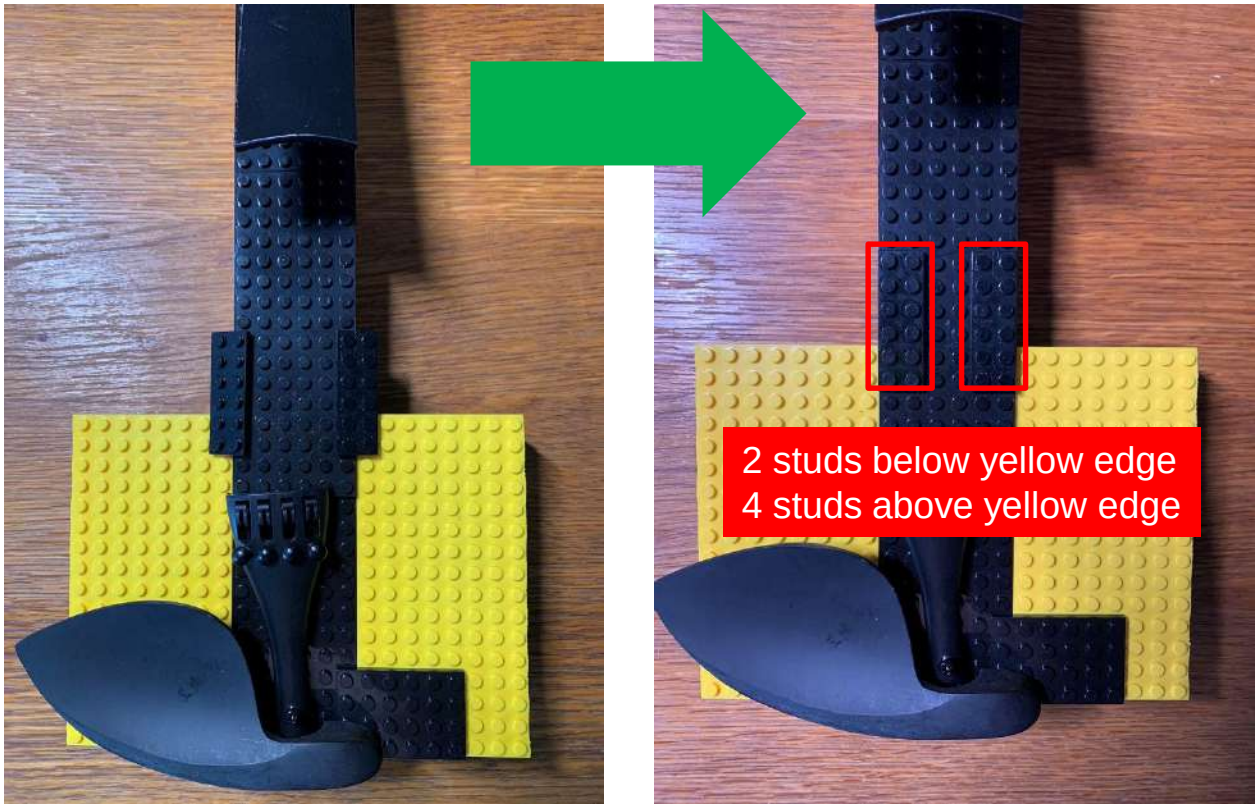
**Step 9b**



# Step 9

Attach bridge/soundbox to violin body

**Step 9c**




# Step 9

Attach bridge/soundbox to violin body

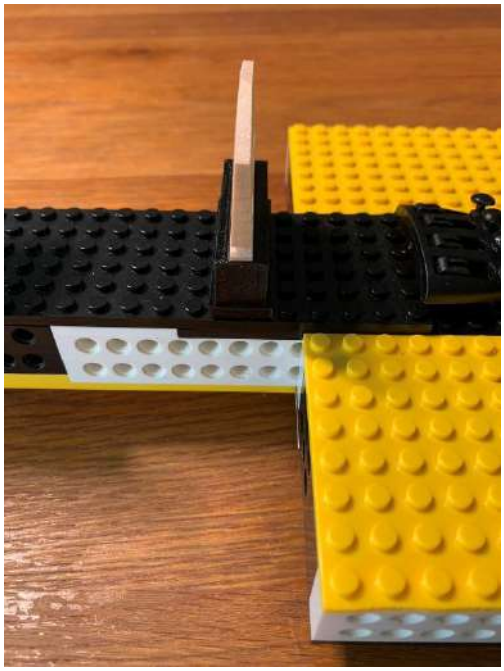
**Step 9d**

Place bridge holder and bridge on top of the spine

# Step 9 – With soundbox

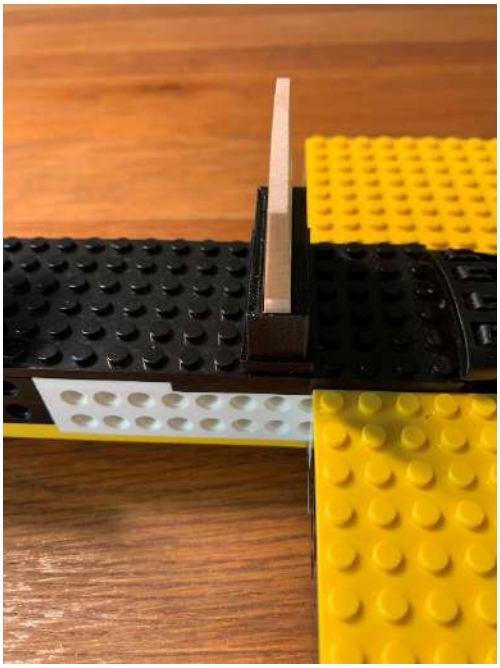
Attach bridge/soundbox to violin body

Postion of violin bridge varies from sizes



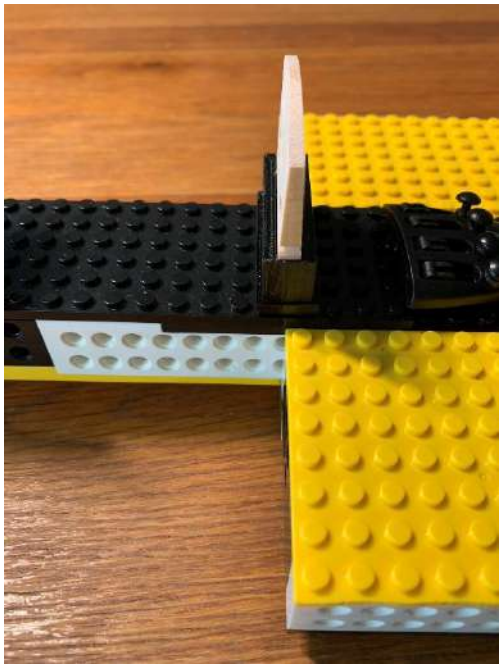
4/4 size

1 stud to the Yellow edge



3/4 size

0 stud to the Yellow edge



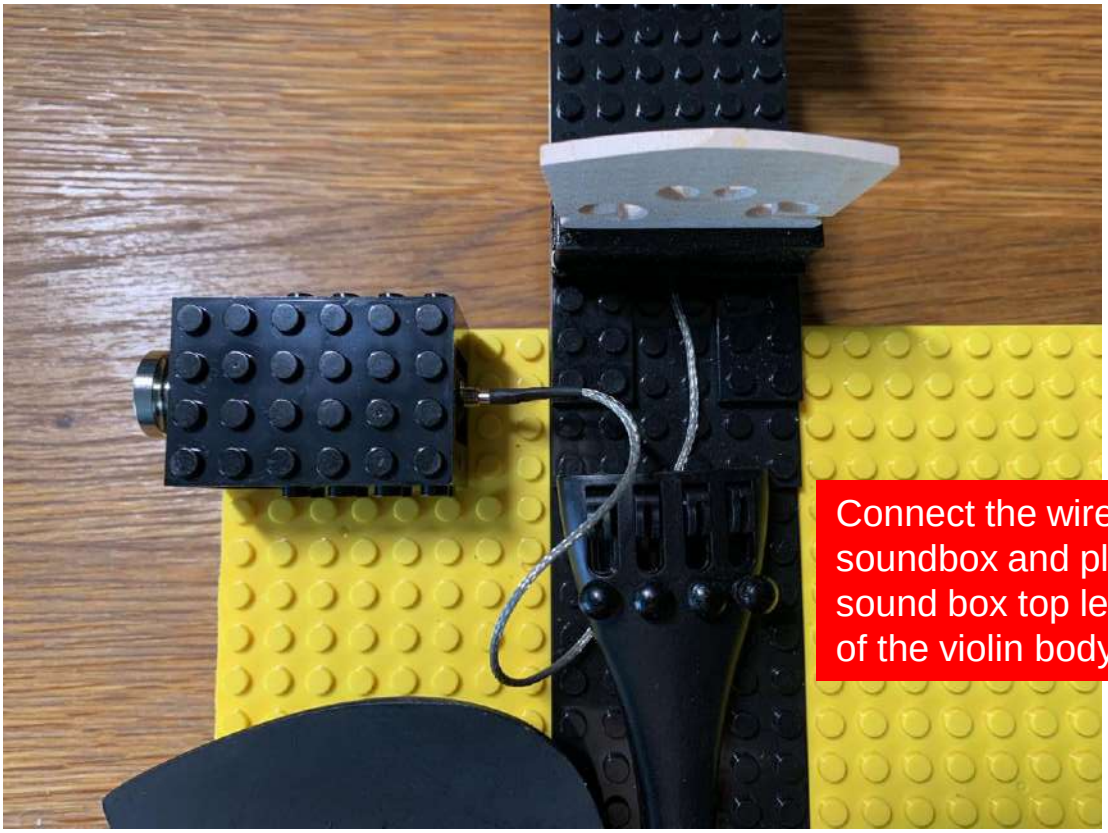
1/2 size

-1 stud to the Yellow edge

# Step 9

Attach bridge/soundbox to violin body

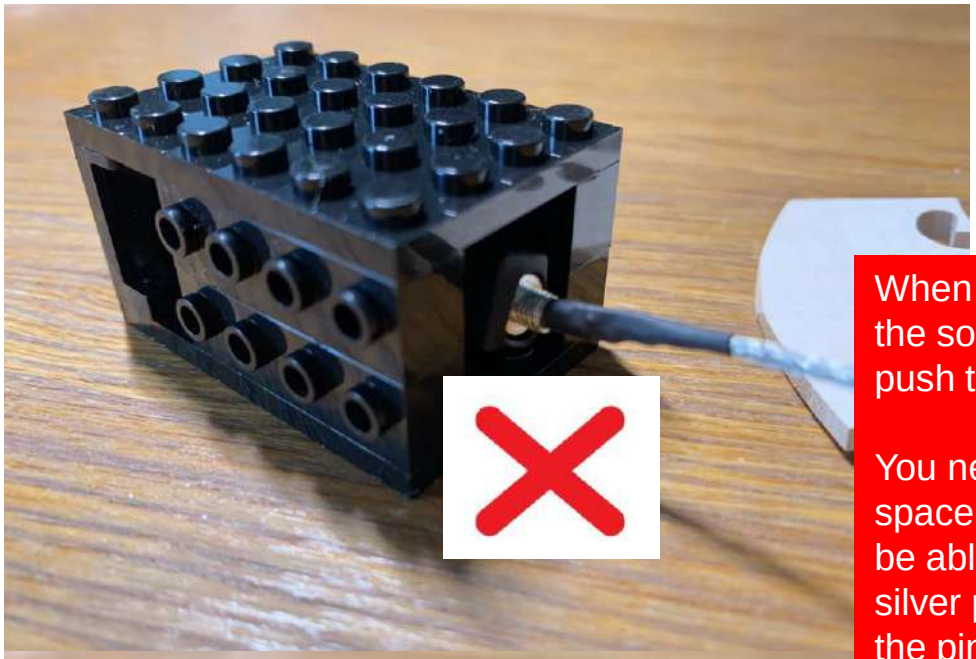
**Step 9d**

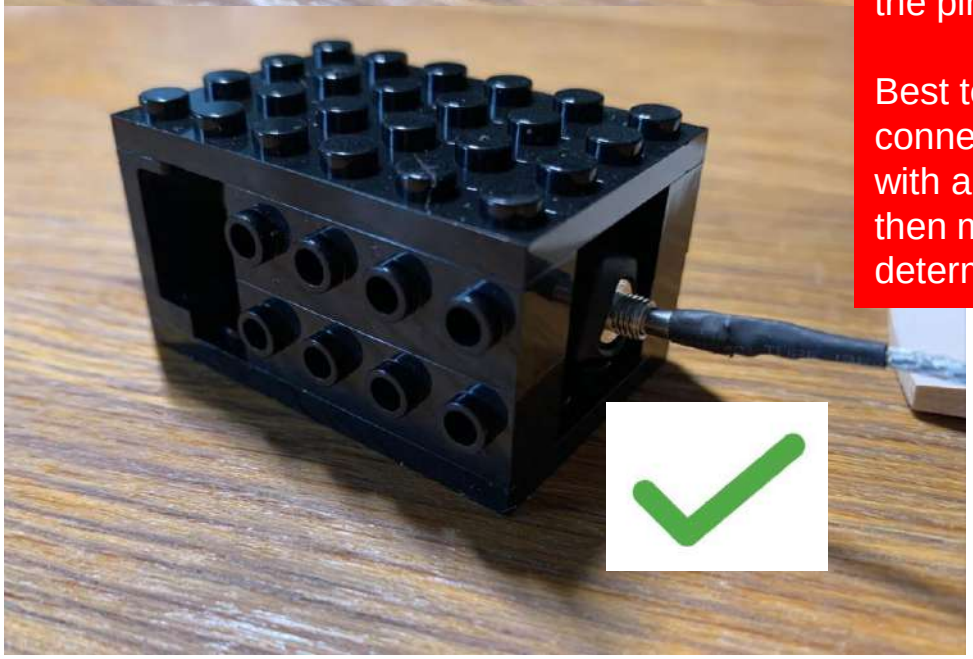



# Step 9

Attach bridge/soundbox to violin body

**Note**





When connecting wire to the soundbox, DO NOT push the pin to the end,

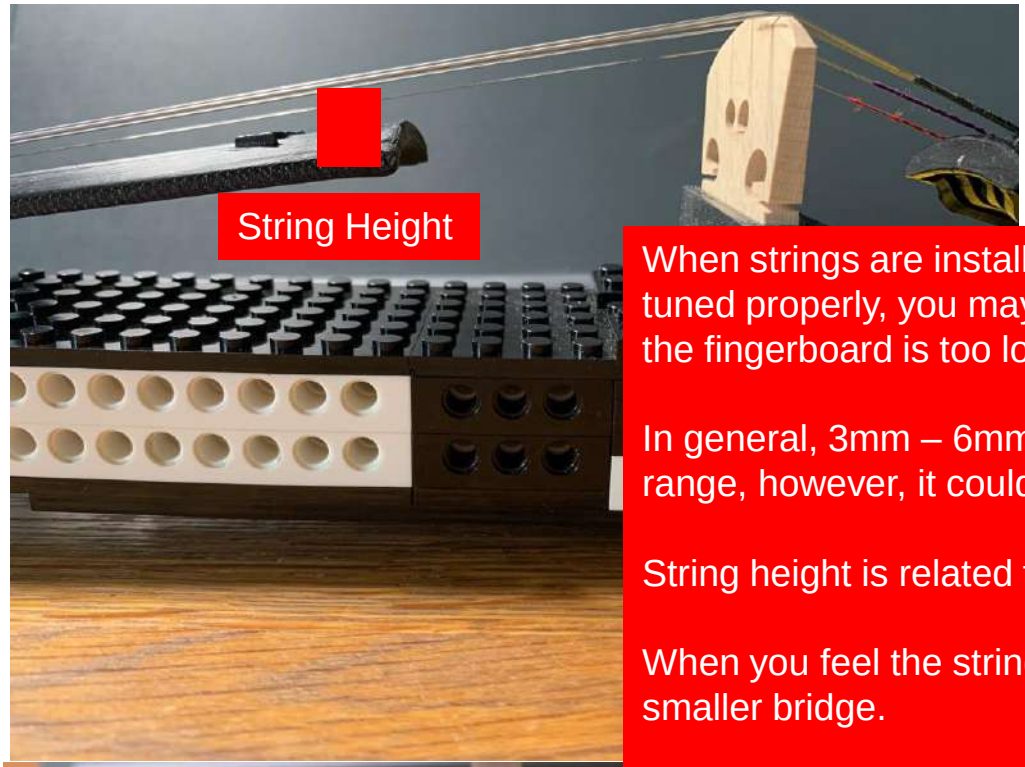
You need to leave some space, i.e. you should still be able to see the end of silver pin when connected the pin to the box.

Best testing method is to connect the soundbox with ampifier/speaker, then move the pin in/out to determin best position.

# Step 9

Attach bridge/soundbox to violin body

**Note**



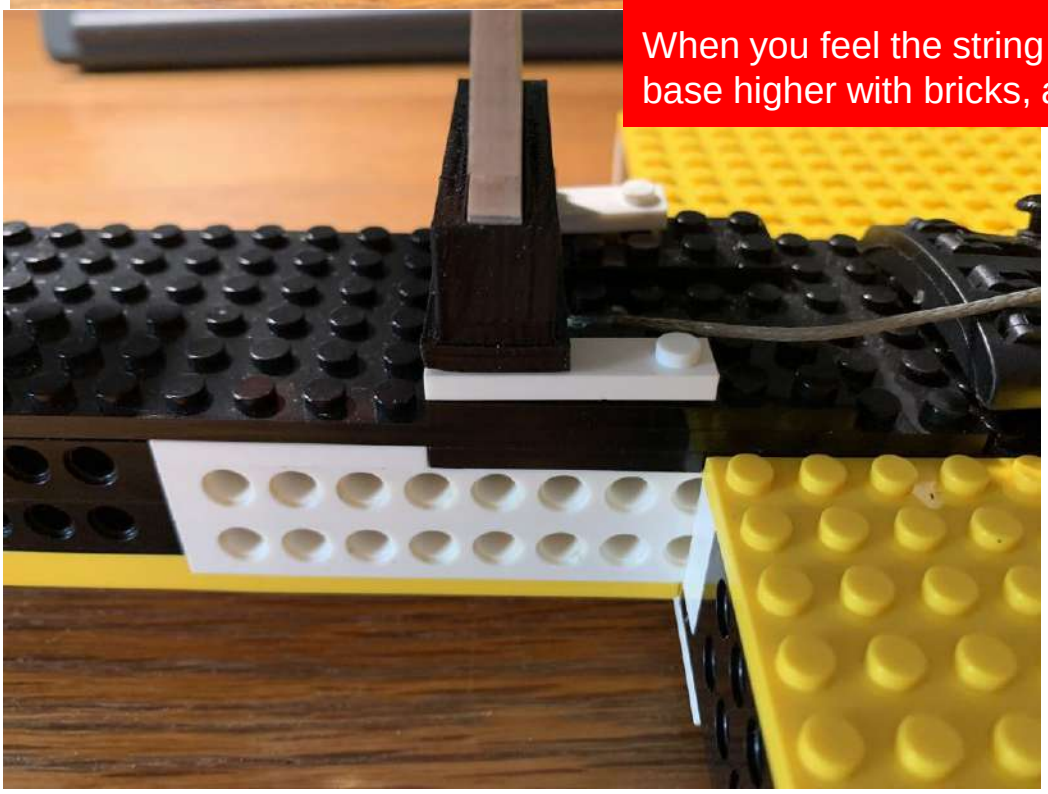

When strings are installed and after they are tuned properly, you may find string height to the fingerboard is too low or too high.

In general, 3mm – 6mm range is appropriate range, however, it could be a personal choice.

String height is related to the bridge height.

When you feel the string is too high, use the smaller bridge.

When you feel the string is too low, make the base higher with bricks, as seen to the left



# Step 10

Install string and tune

**Note:**

We have a video demonstration to guide you through installing strings and tuning, you can access this link directly or scan the qr code

https://funkidviolin.com/how-to-string-restring-violin-and-how-to-tune/