

Children's Furniture Made of Paper Tubes

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Goal:

to create several pieces of playfull furniture for kids, using special abilities of material.

Why furniture for children:

character of this material is very competent for this kind of use, its quite light weight, cheap, ecological, recyclable, and its surface has also great potencial (it can be painted by kids themselves).

Material properties:

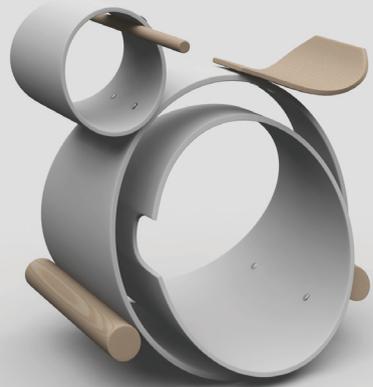
sizes of tubes are arbitrary, according to the Czech company engaged in the manufacture of paper tubes, those tubes are available in sizes up to 6500 mm in length, 626 mm in diameter and 20 mm in the thickness of the material. carrying capacity and other properties such as resistance of tubes are defined by the type of used paper and its surface finish treatment.

Opportunities:

easy treating of material (grinding, cutting, drilling etc.), combinations with other materials, gluing.

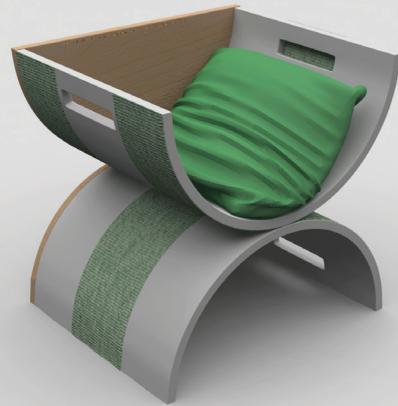
Weaknesses:

round shape doesnt allow all procedures that are applied on flat materials



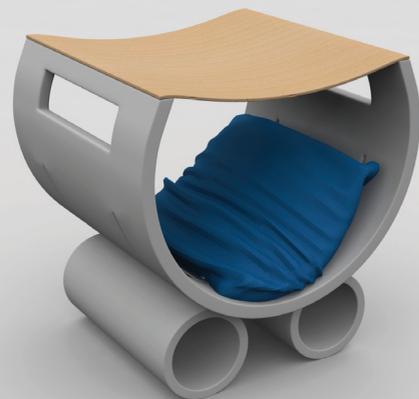
Rocking Animals

rocking chair in the shape of an undefined animal (kid defines it by painting it)



Multi Purpose Furniture

piece of furniture transformable into several shapes, saving space in children's rooms



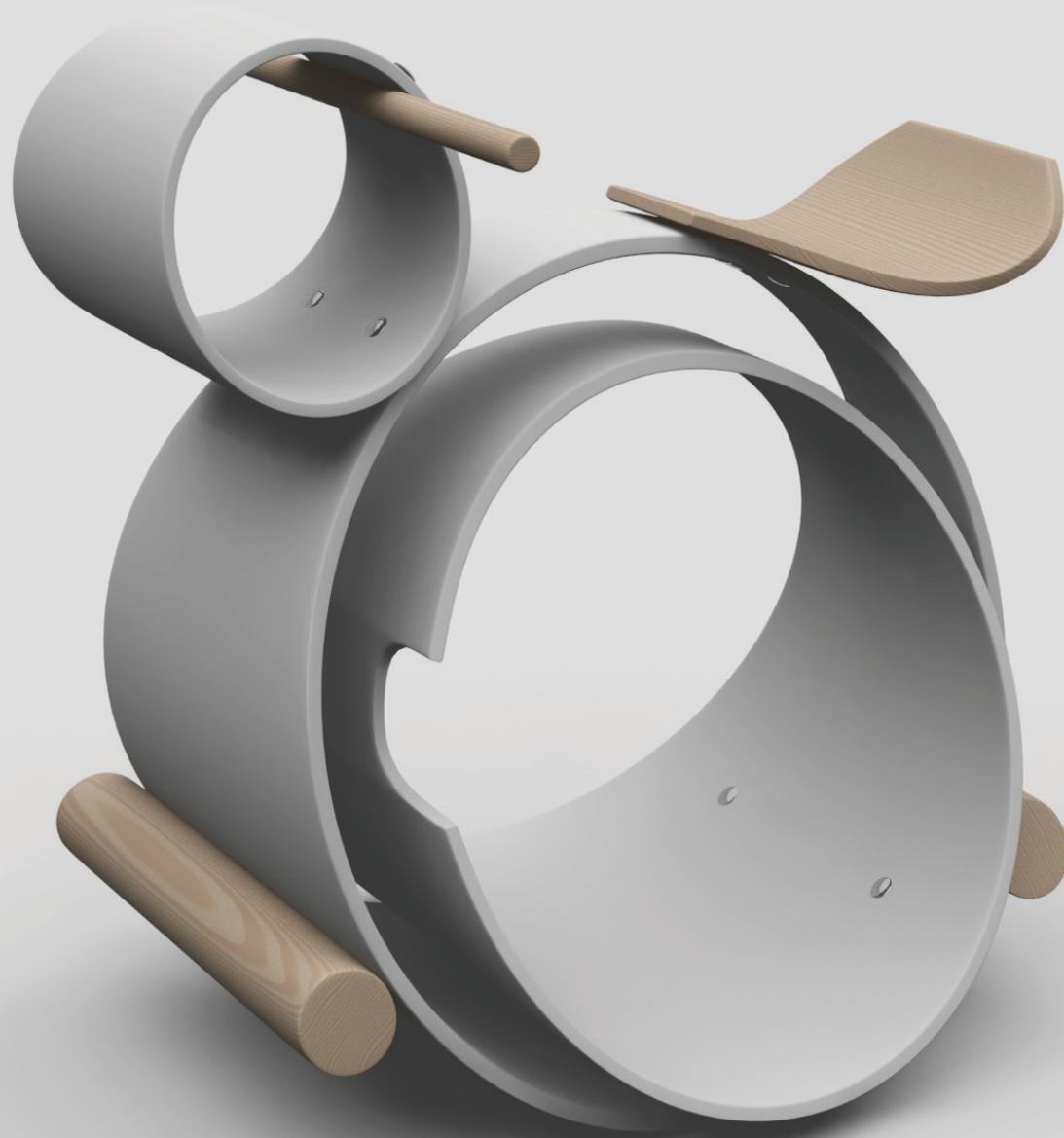
Rising Chair

chair reflecting needs of children for the height of seating furniture

Rocking Animals

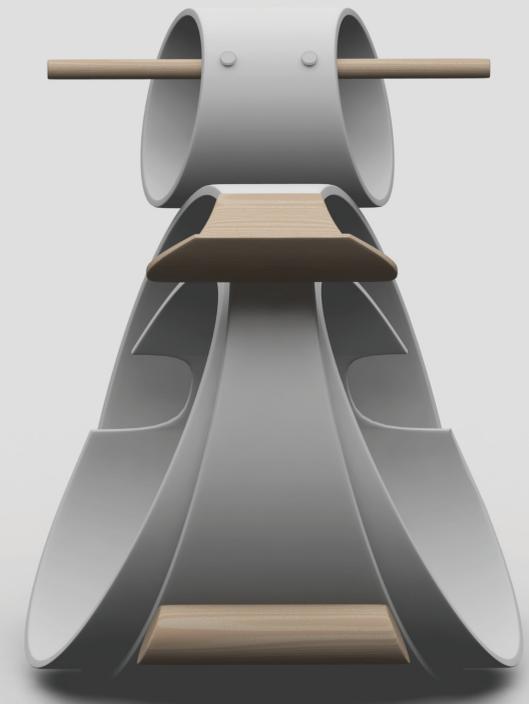
Materials:

paper tubes of various sizes,
conically cutted
wooden accessories (front and
back stops, seat, handle)
steel rivets
steel screws





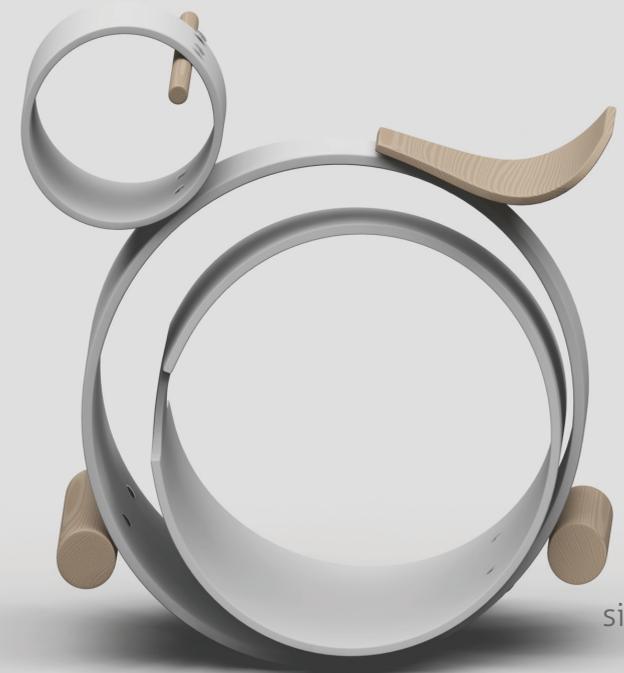
front view



back view

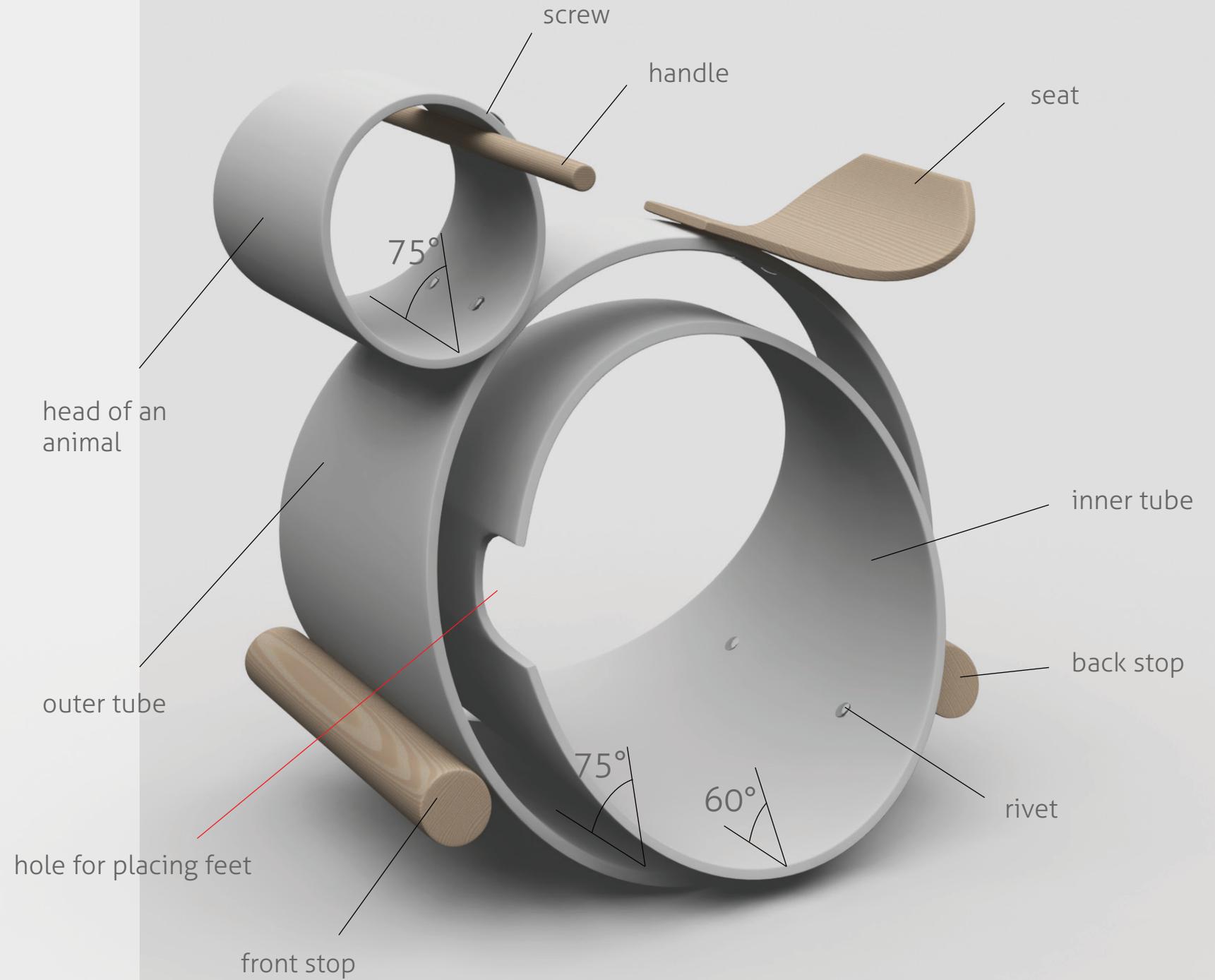


top view

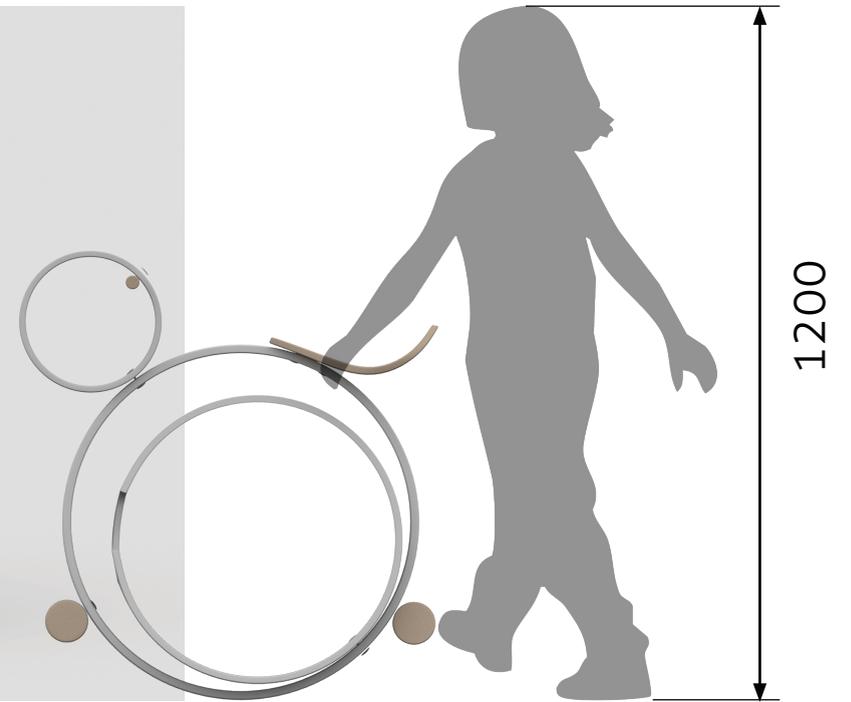
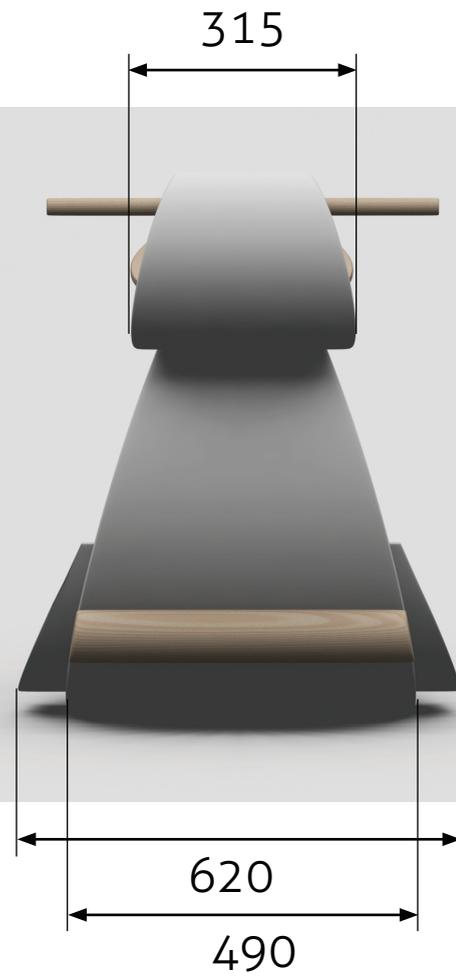
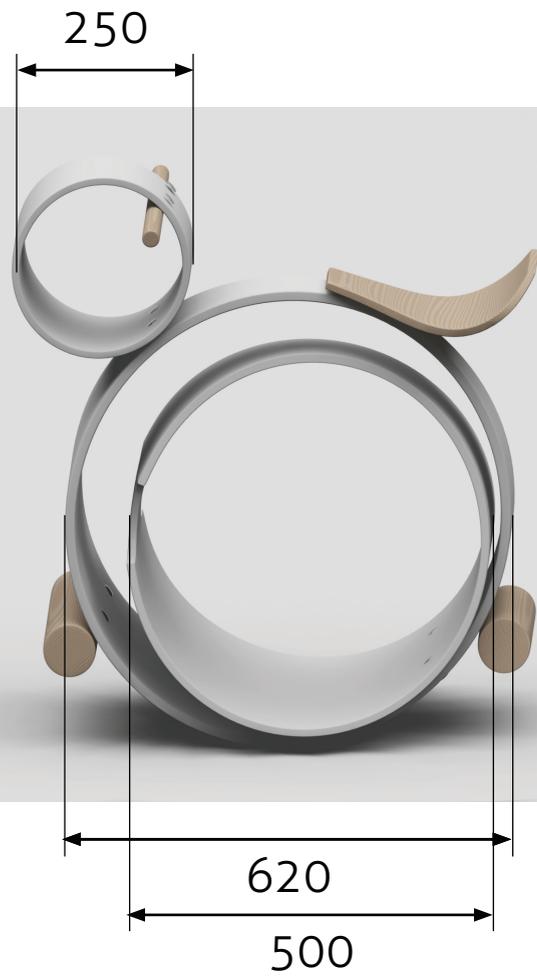


side view

parts and construction

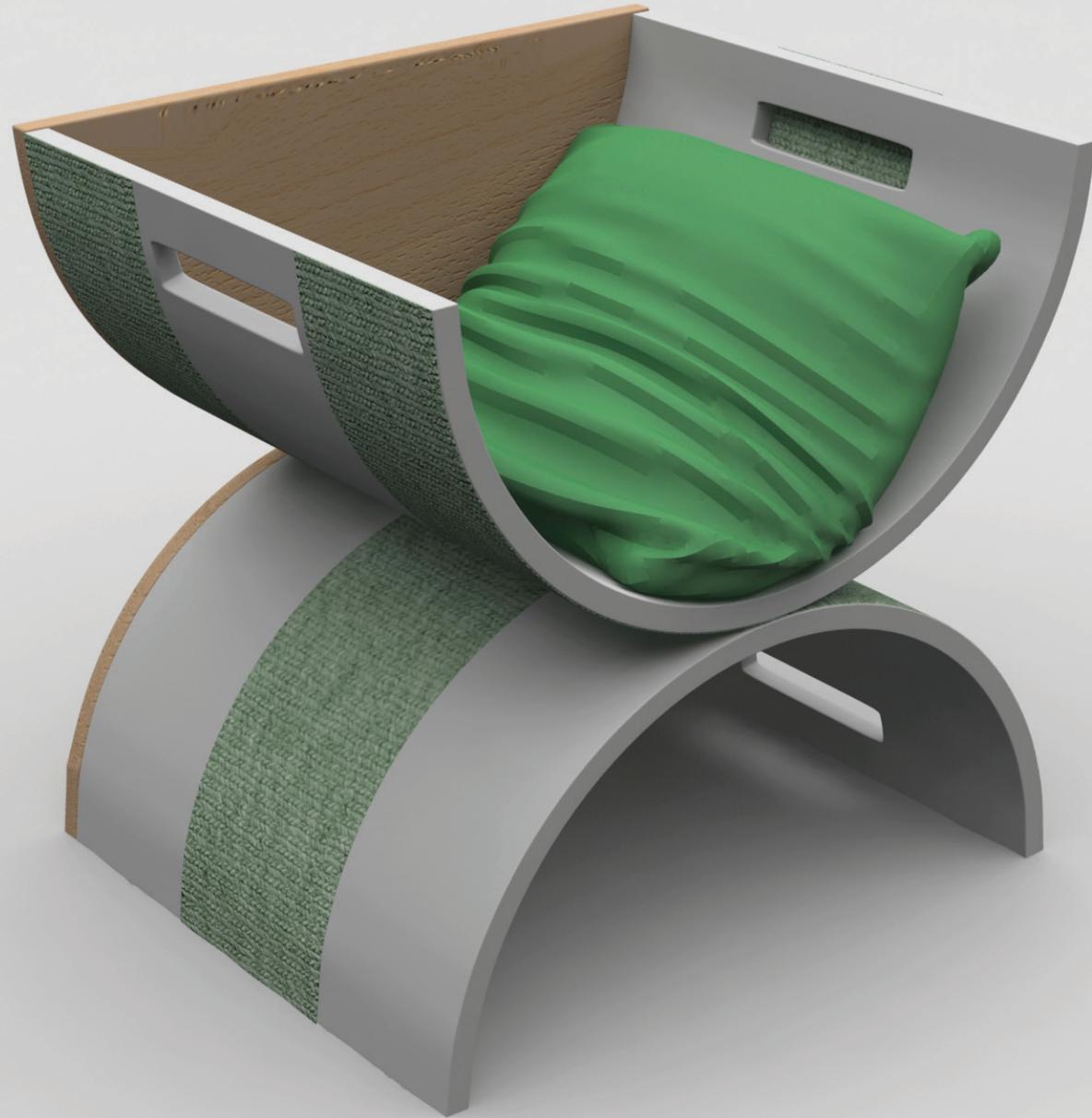


dimensions (mm), compared with the height of the child

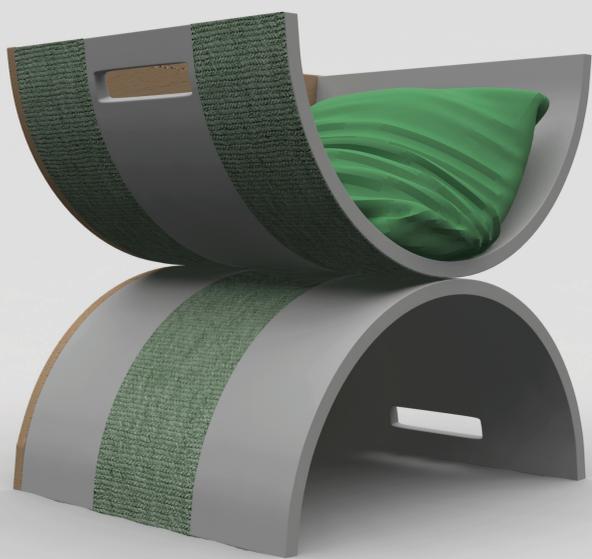


Multipurpose Furniture

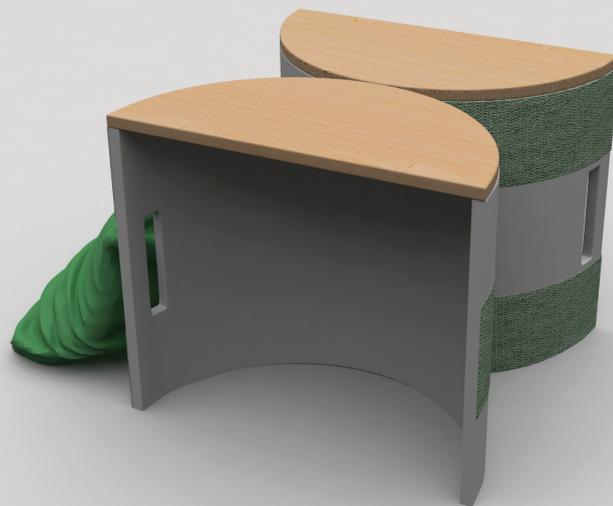
Materials:
paper tube, lengthwise cutted
wooden back
steel securing system
fabric straps



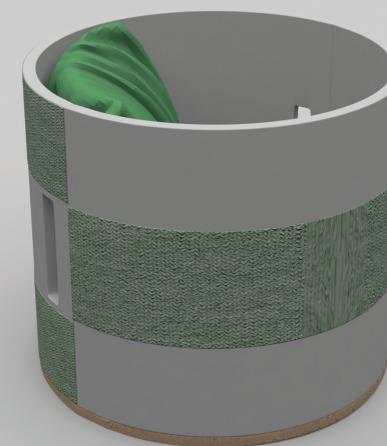
perspective



chair

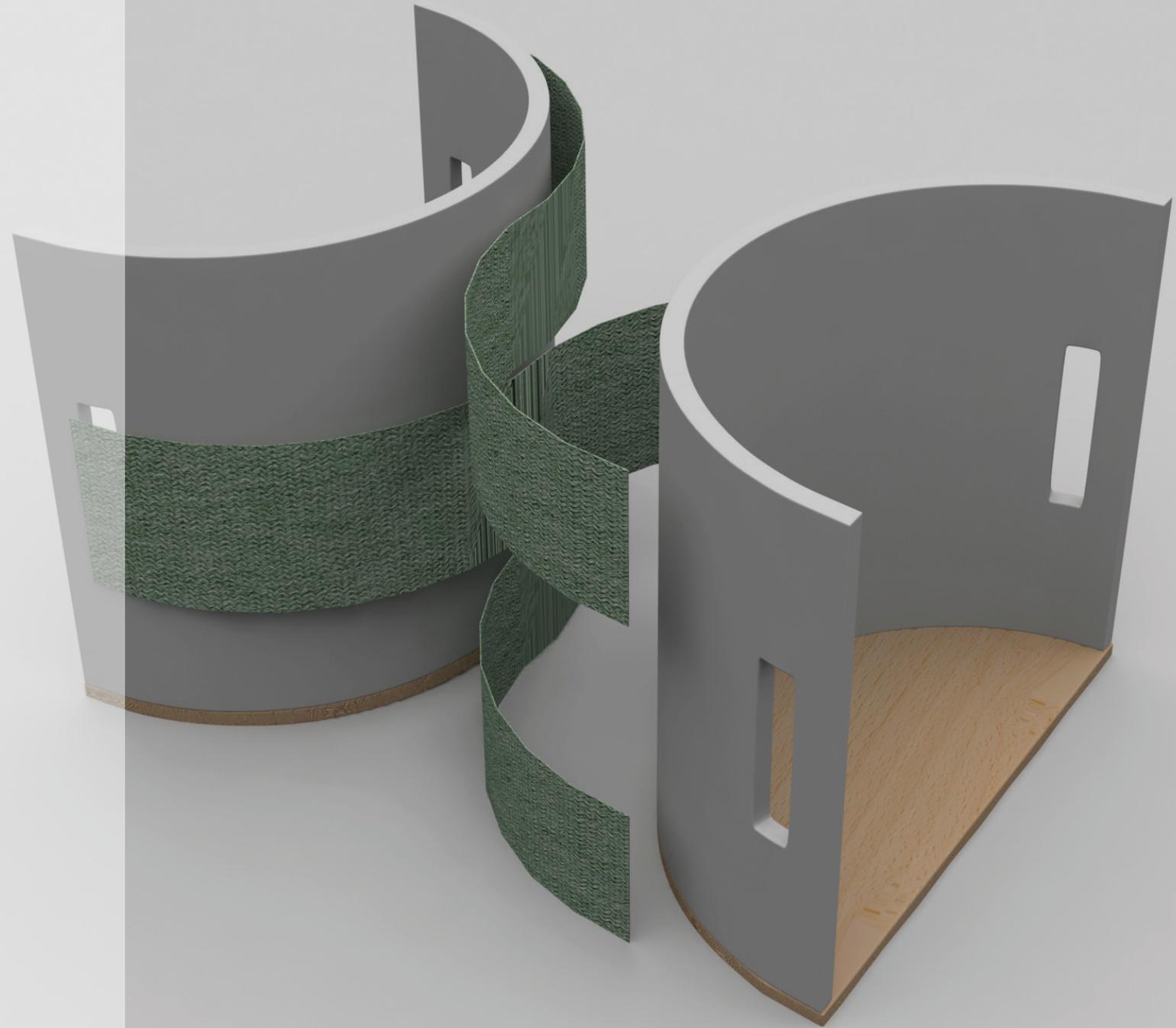


table

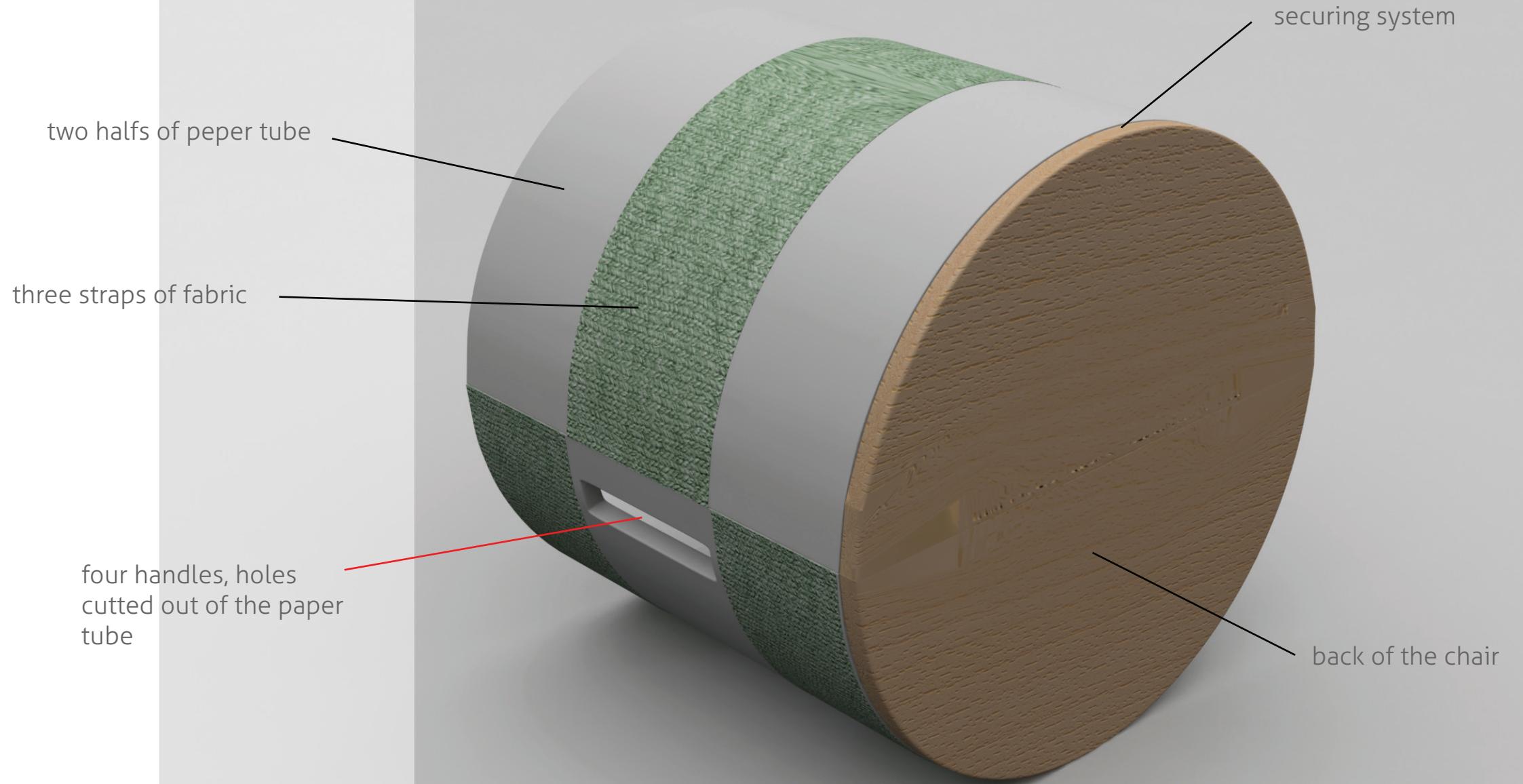


storage for toys

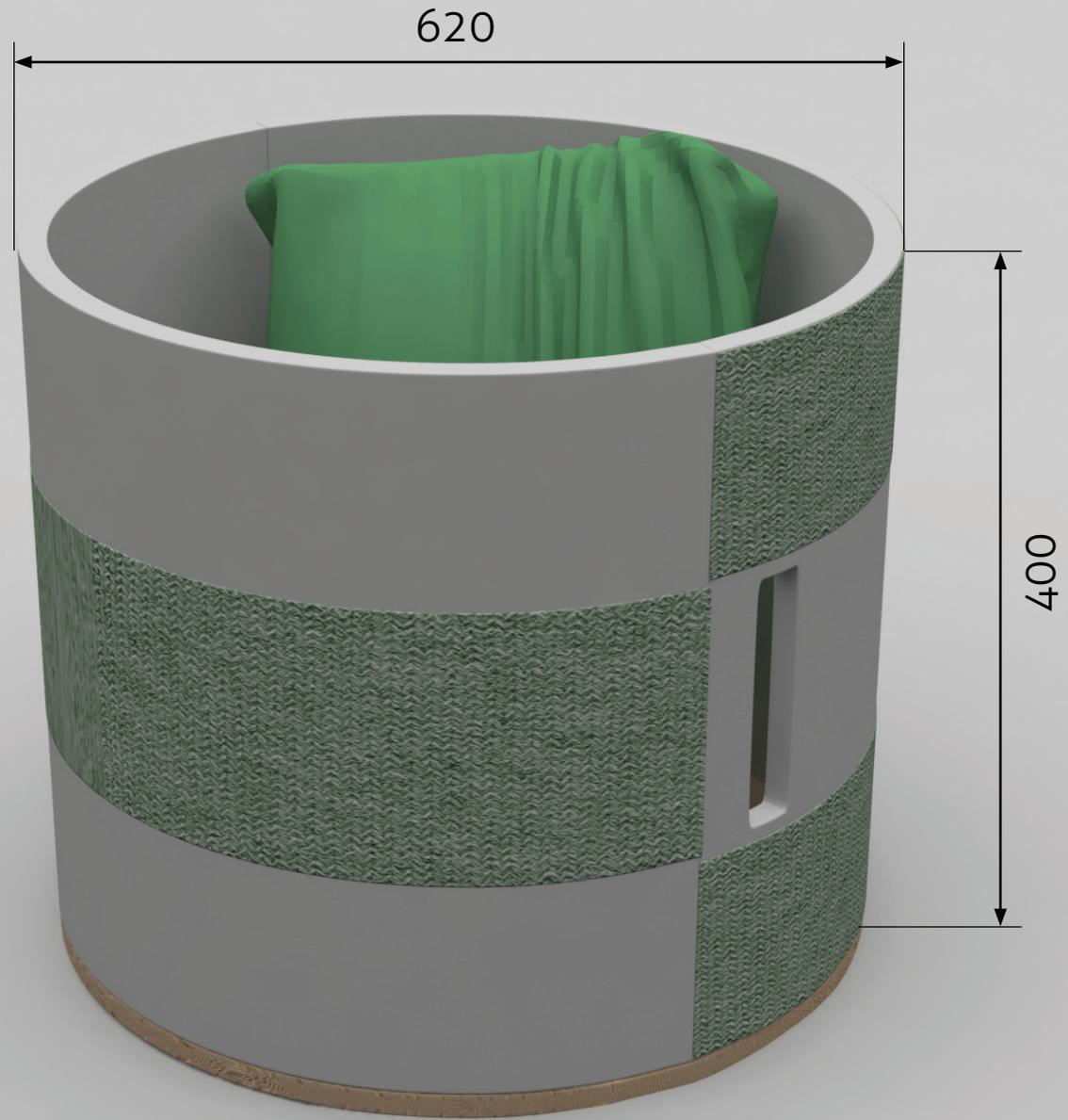
turning and securing
system



elements



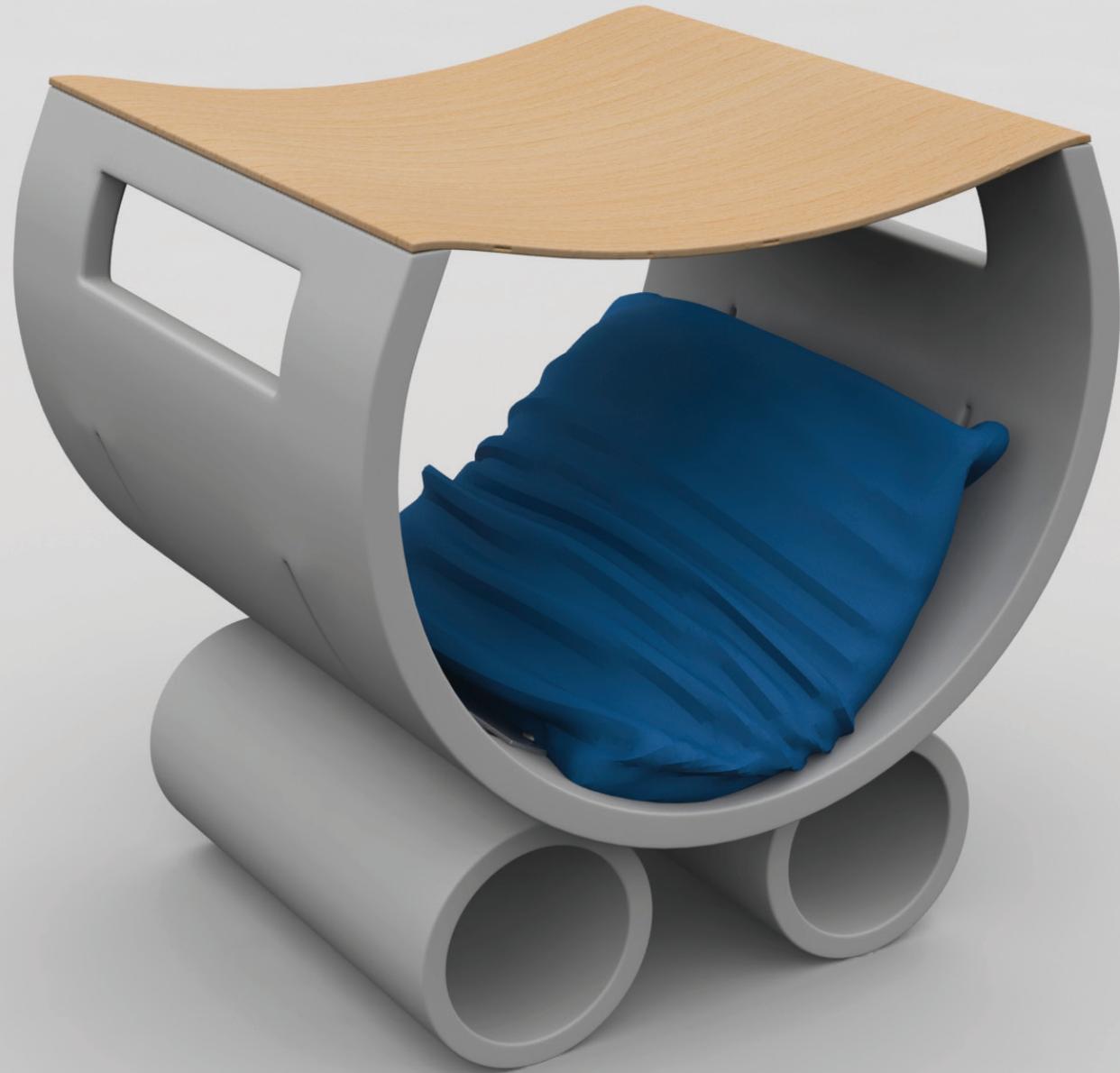
dimensions (mm)



Rising Chair

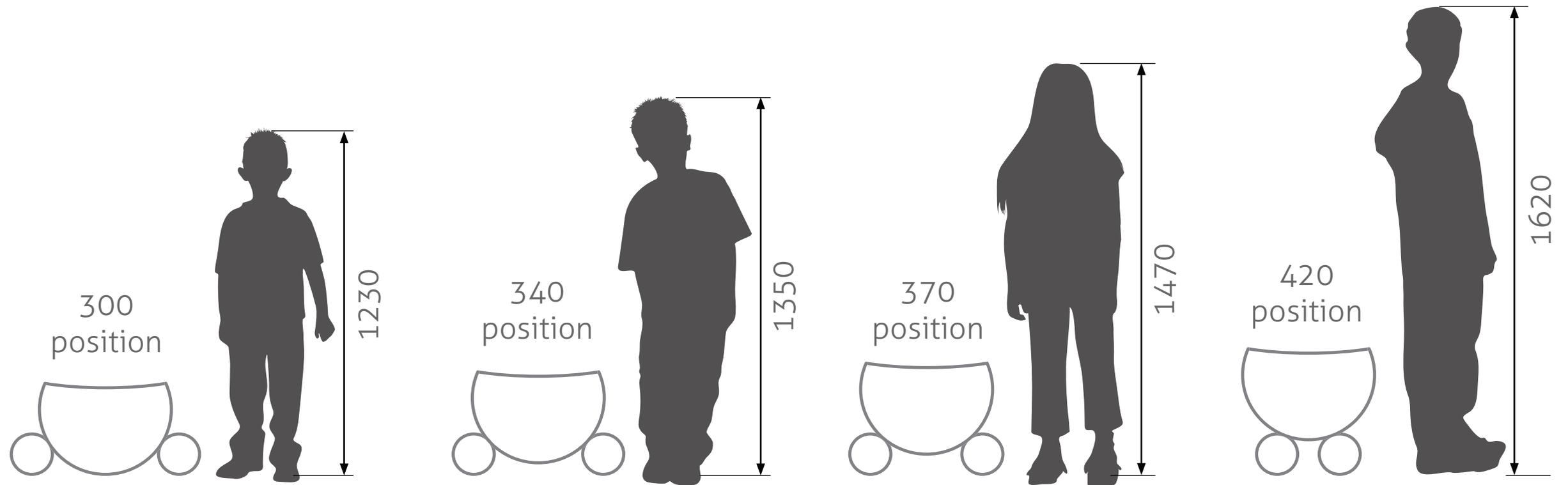
Materials:

paper tube, lengthwise cutted in
two thirds
two smaller paper tubes
wooden seat
steel moving system

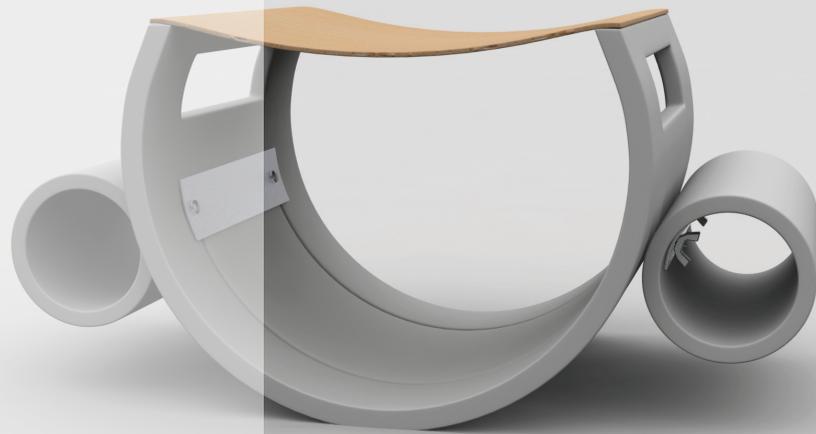


required height of chair for kids (mm)

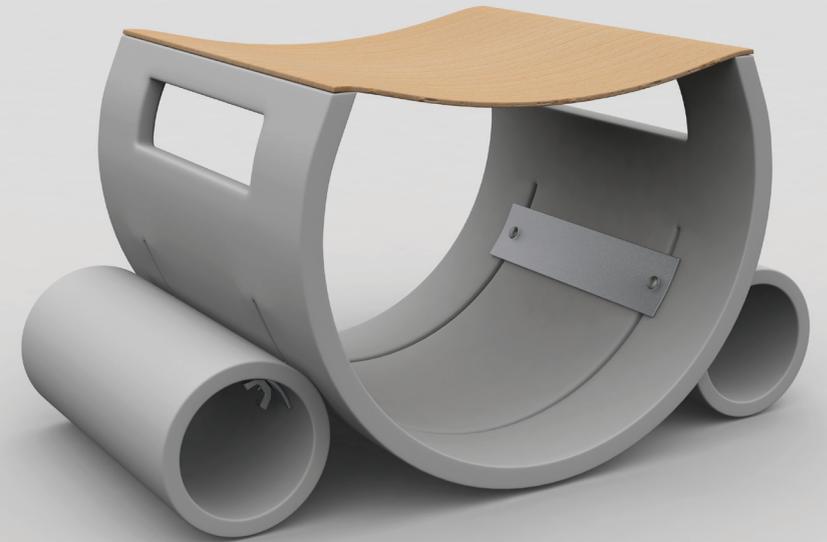
Body of the chair is made of tube - 450 mm in diameter, 360 mm in length.
Legs of the chair are made of tube - 140 mm in diameter, 300 mm in length.



positions of the chair



rocking position



300 mm height

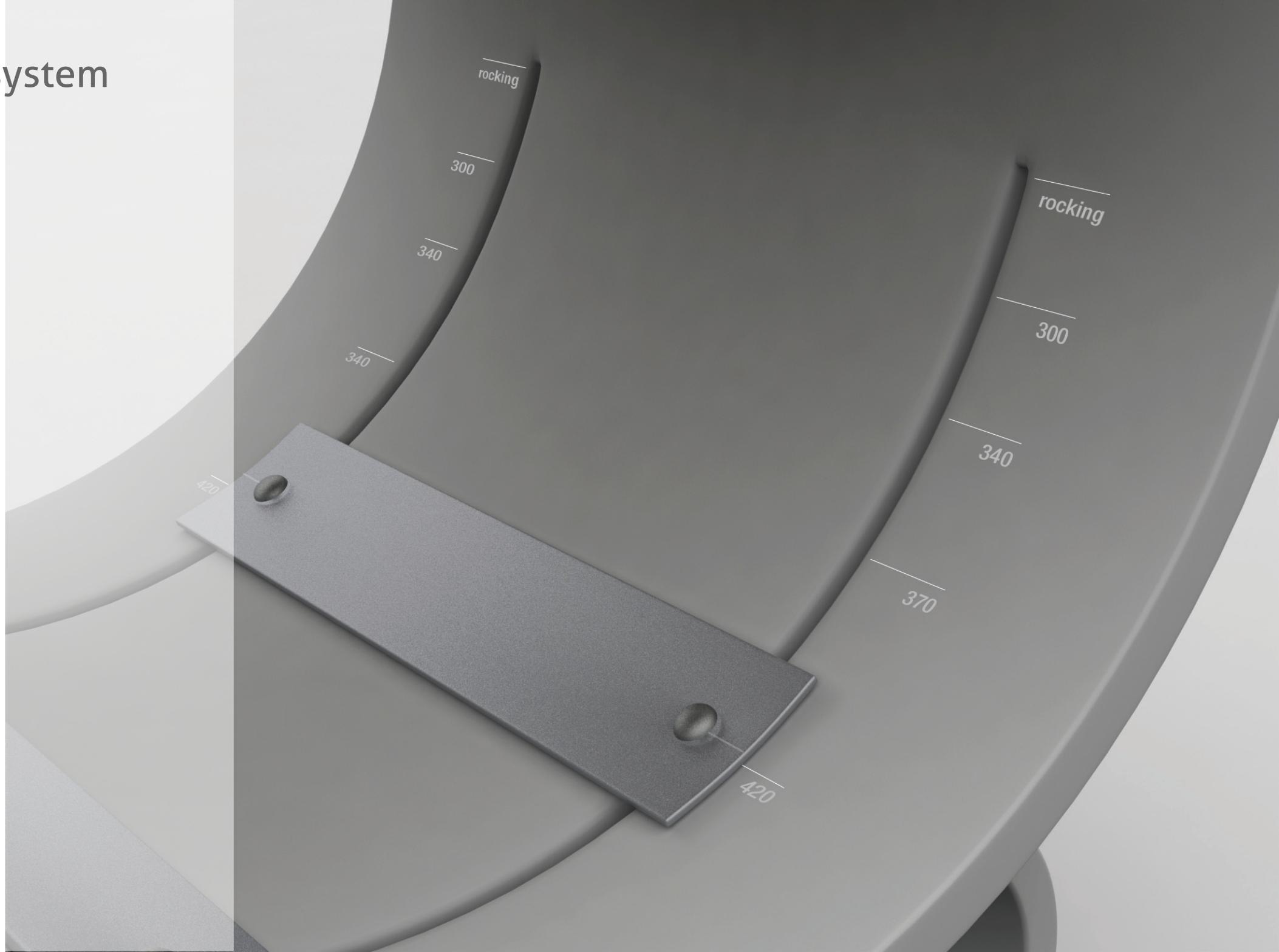


370 mm height

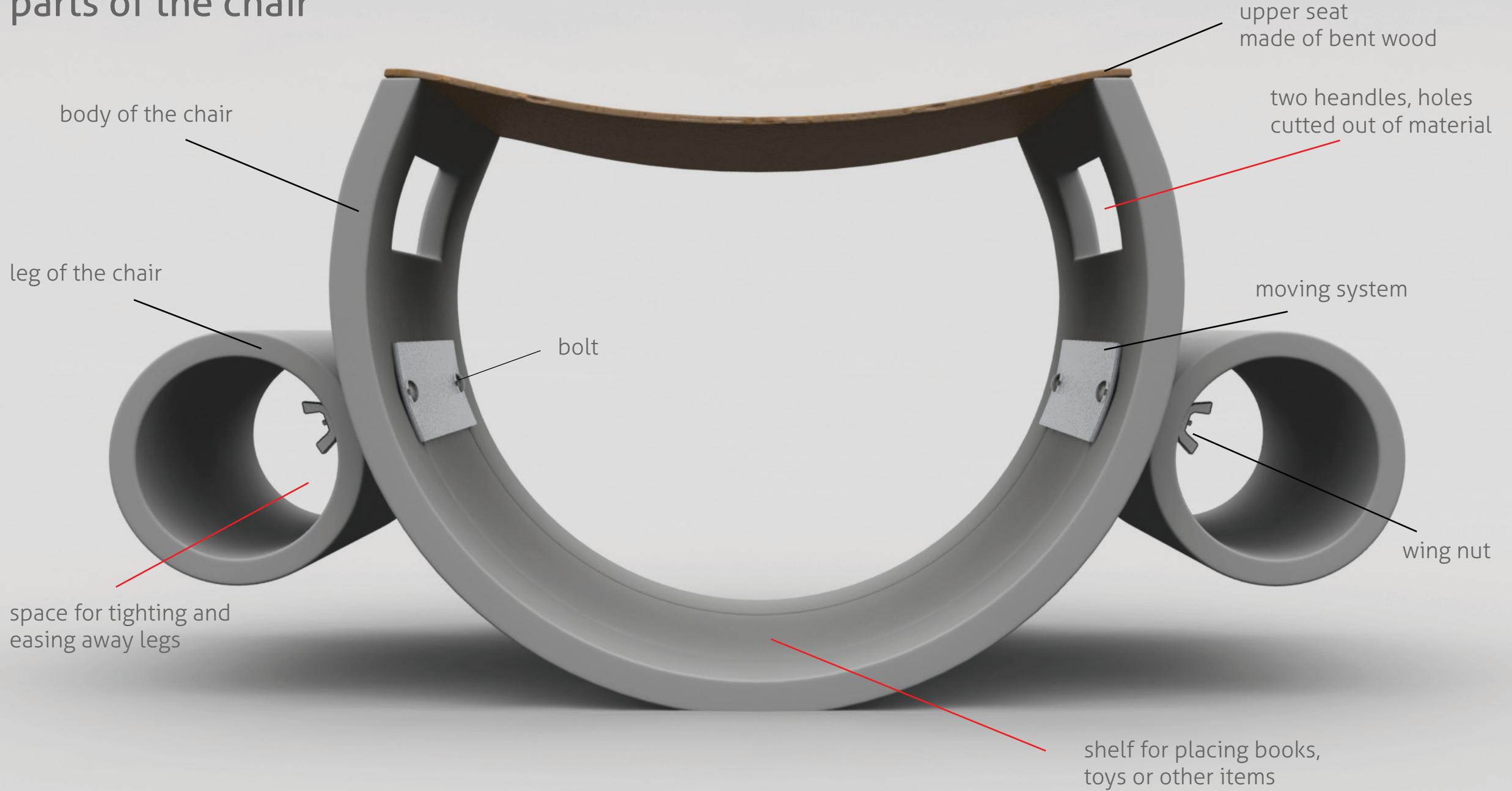


420 mm height

setting of the system



parts of the chair



Thank you for your attention!

Alice Endrychová
for Swedish Innovation Prize 2013