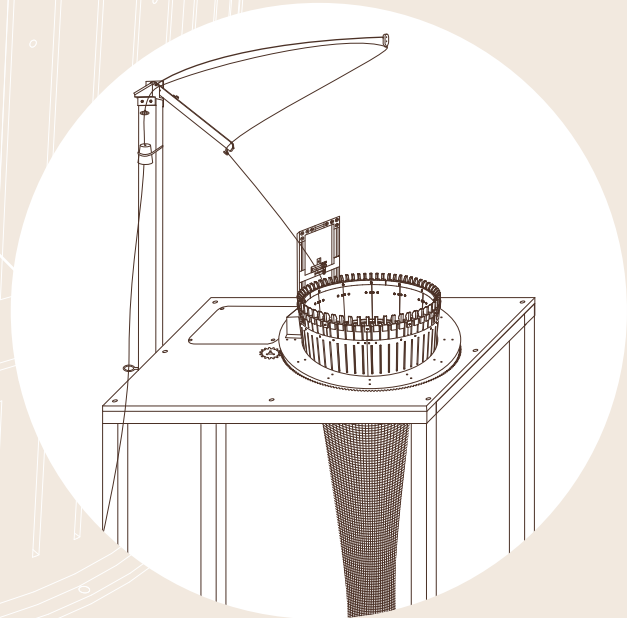


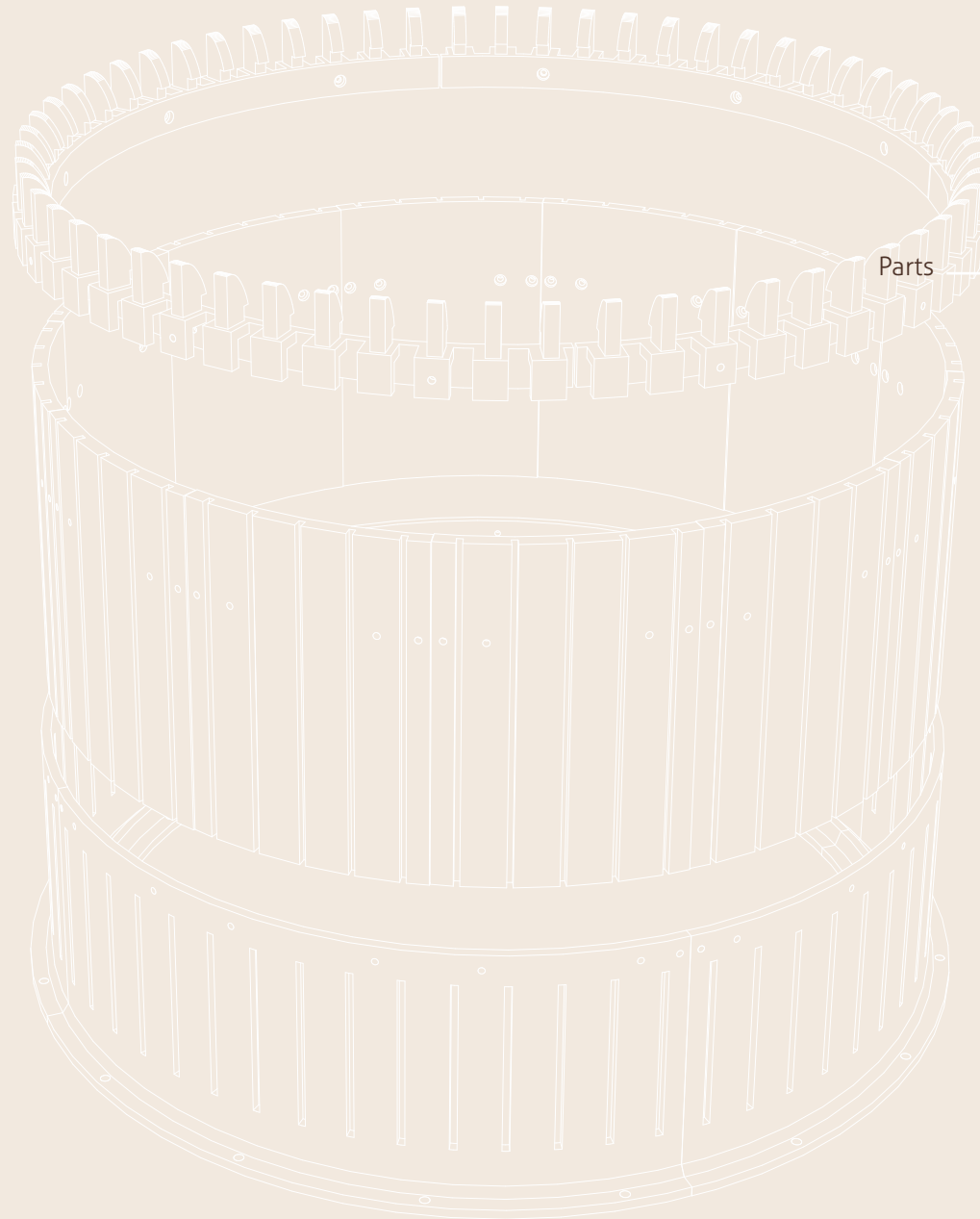
Circular Knitic

open source knitting machine

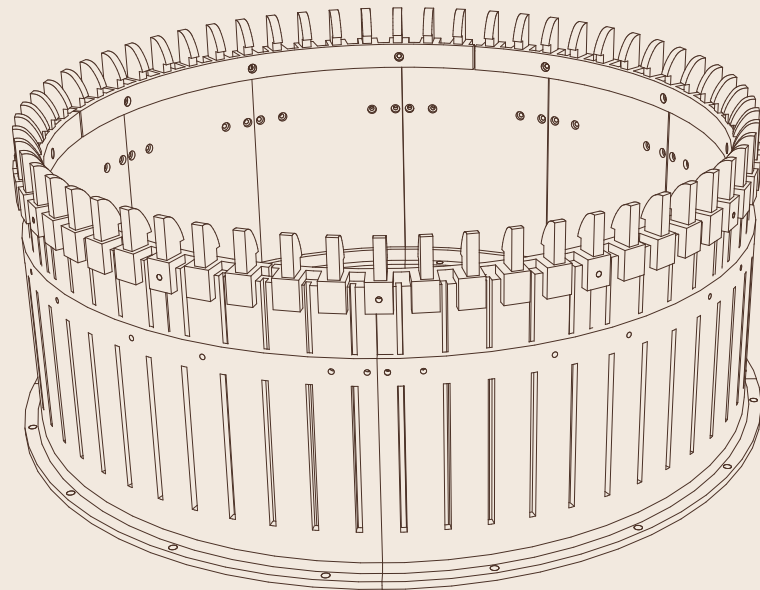
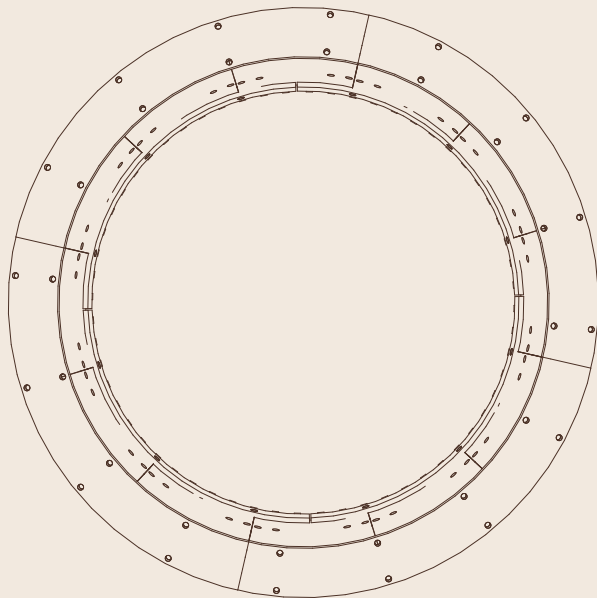
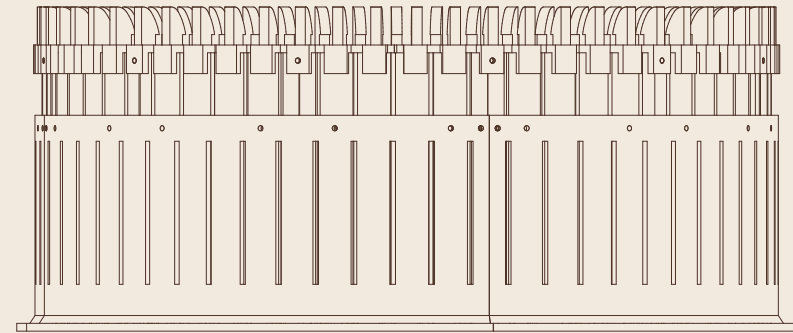
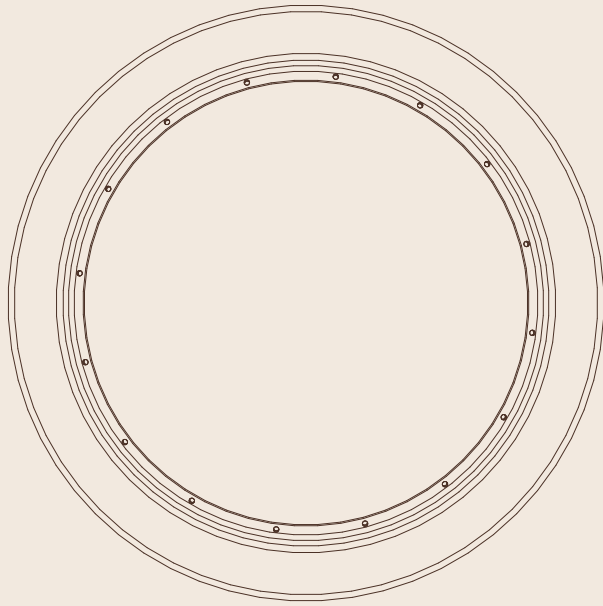
<http://var-mar.info> | <http://www.knitic.com>

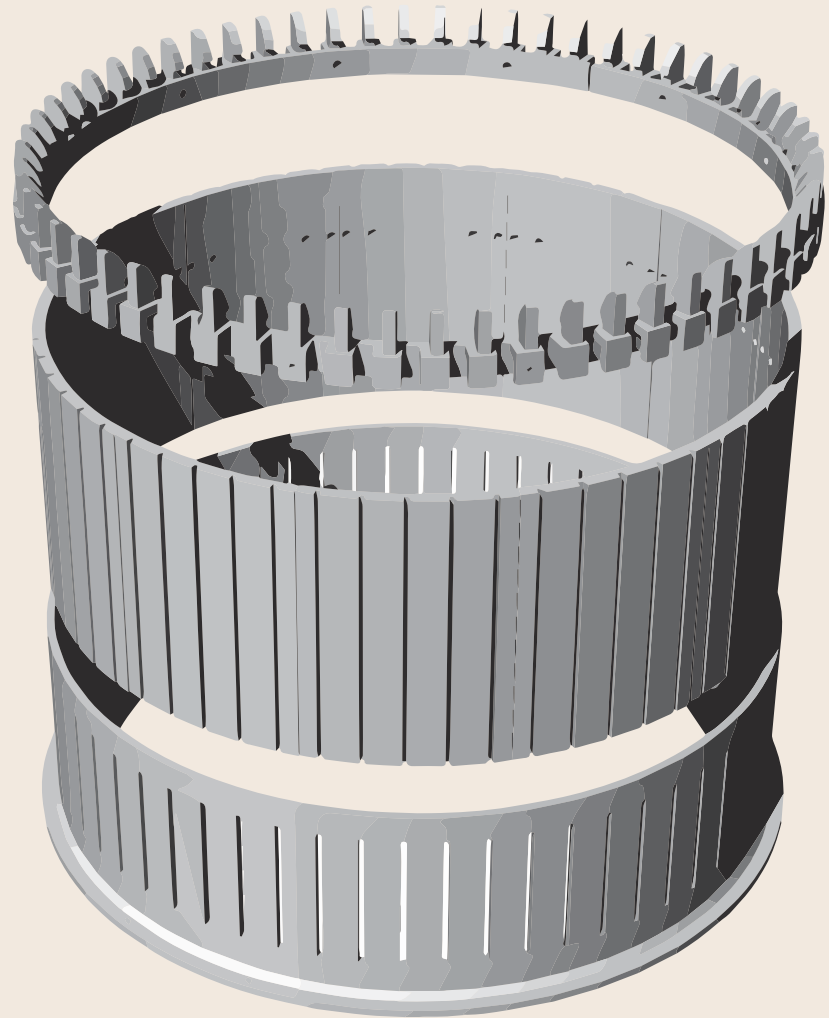
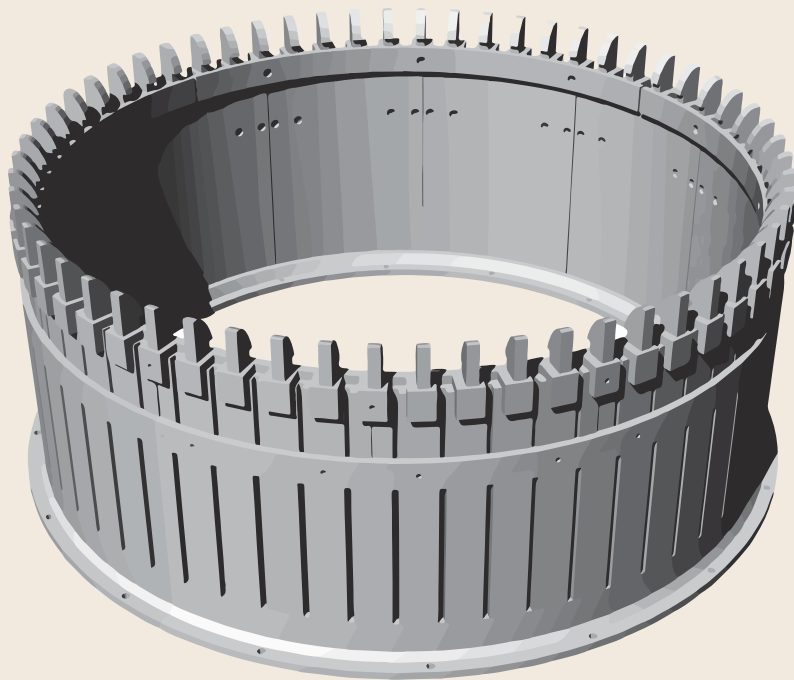
Varvara Guljajeva & Mar Canet
2014

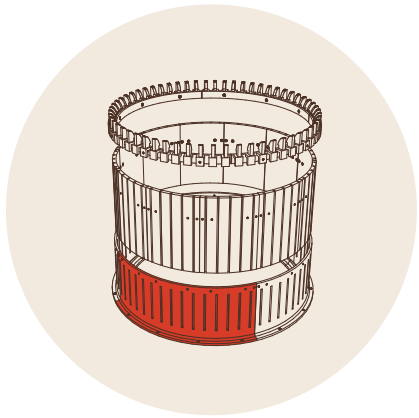




Parts

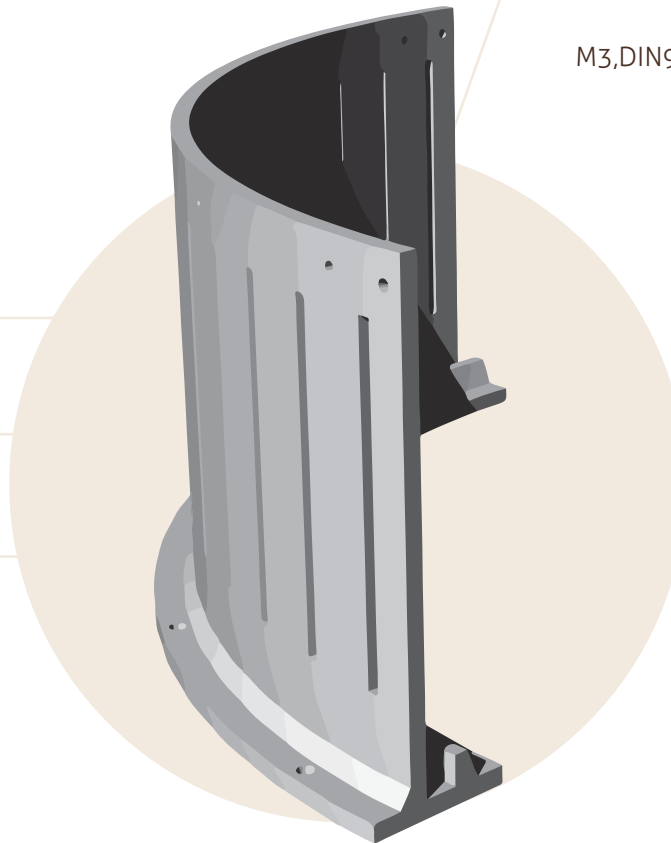
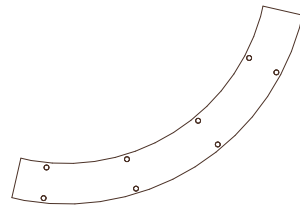
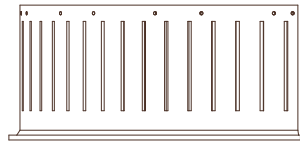
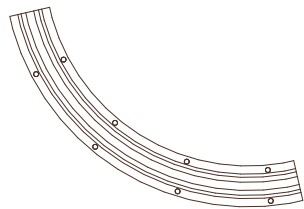


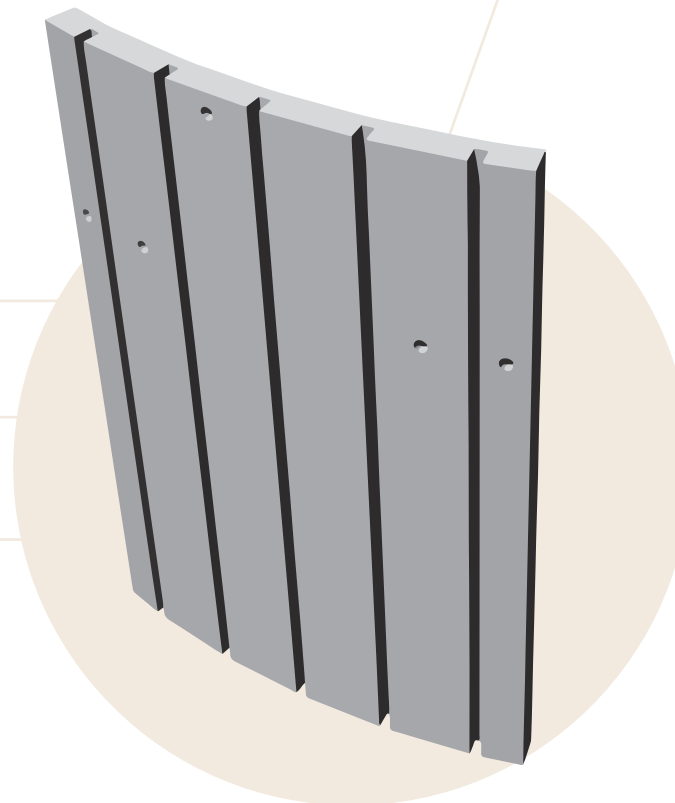
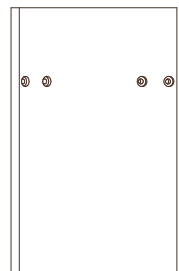
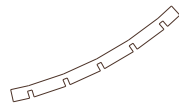
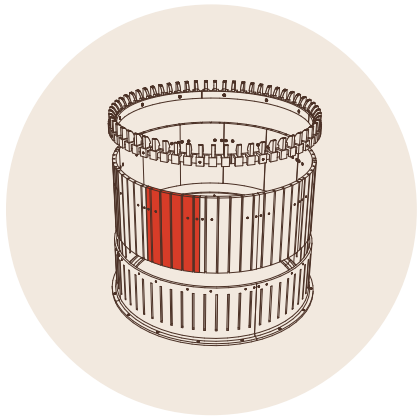




4 x Outer

Connect to a plate with:
M3,DIN912 hex screw, 12mm, 24; M3 nuts, 24

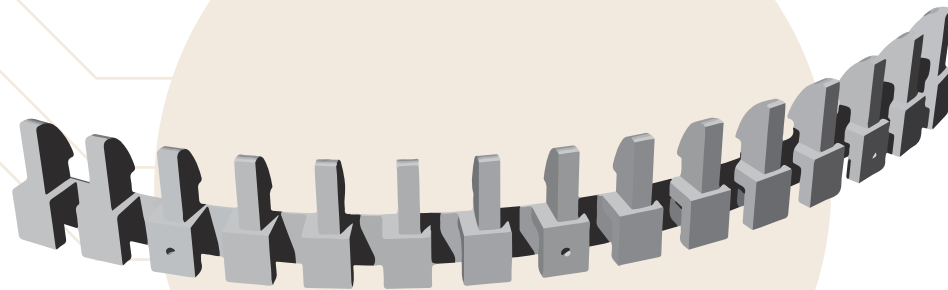
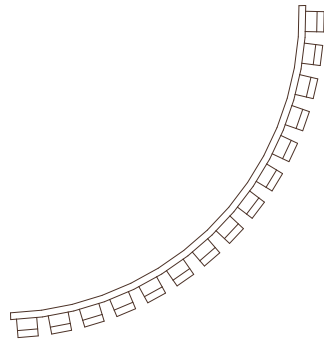
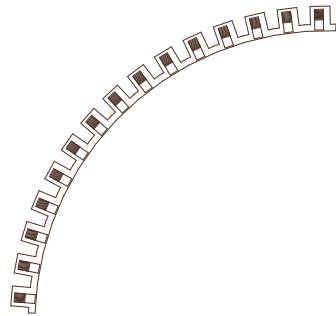
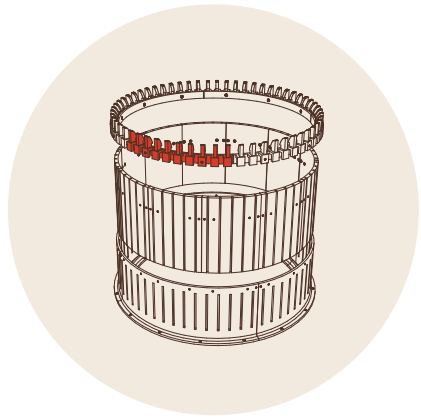




12 x Inner

where the needles go

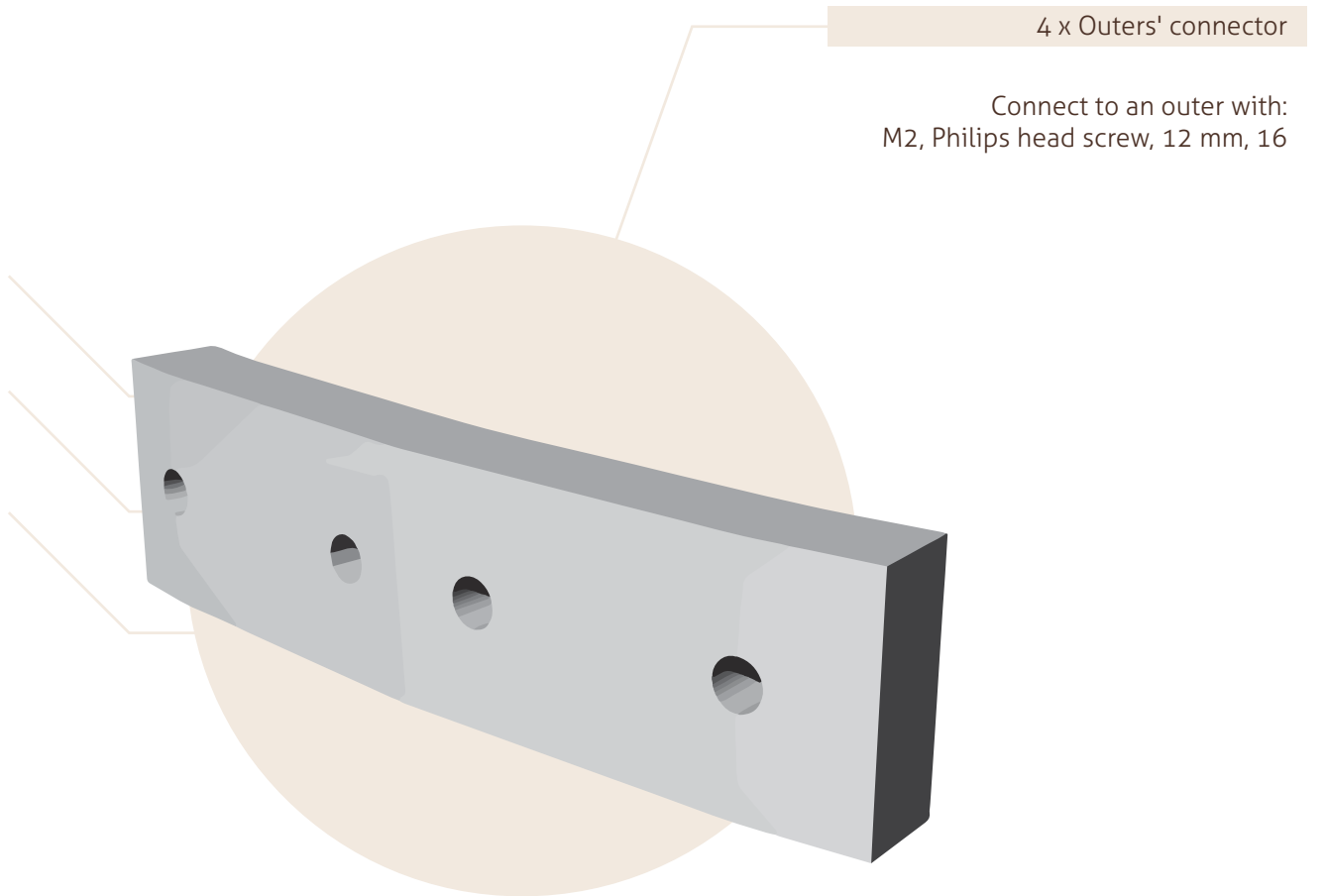
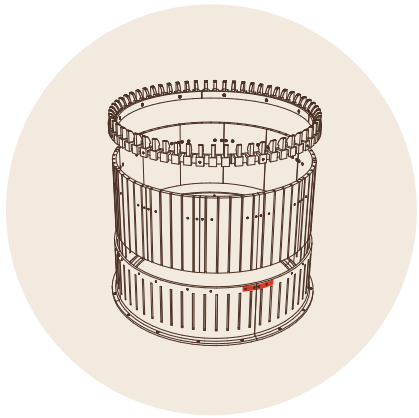
Connect to an outer with:
M2, Philips head screw, 8mm, 16

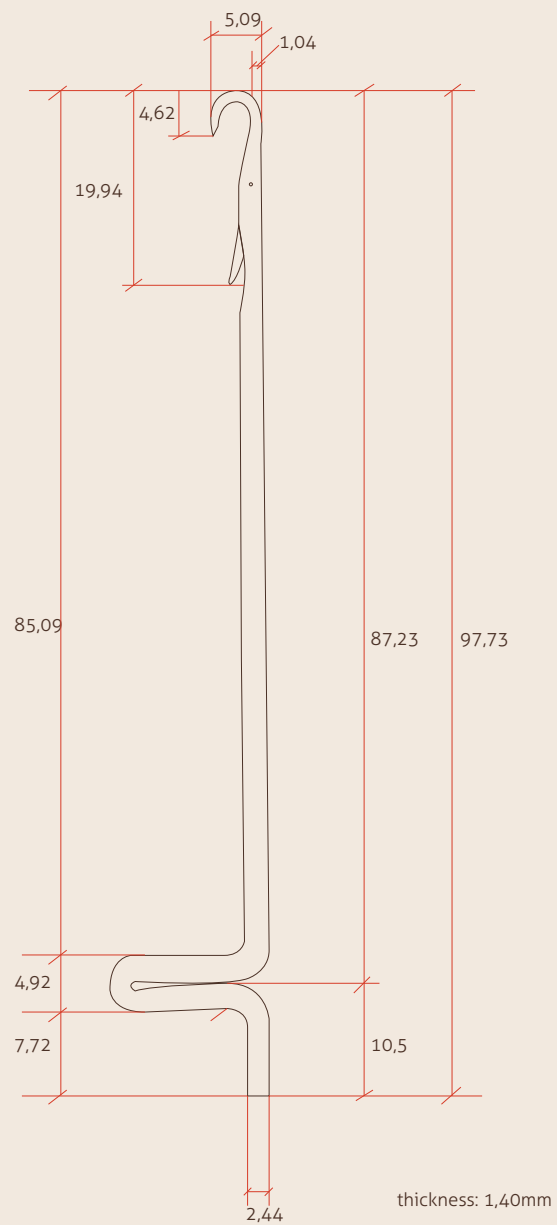
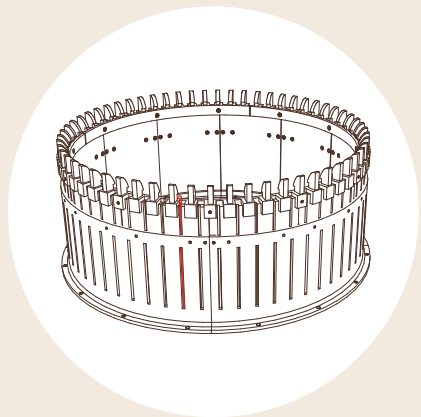


4 x Yarn holder

where the needles go

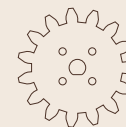
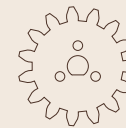
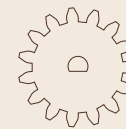
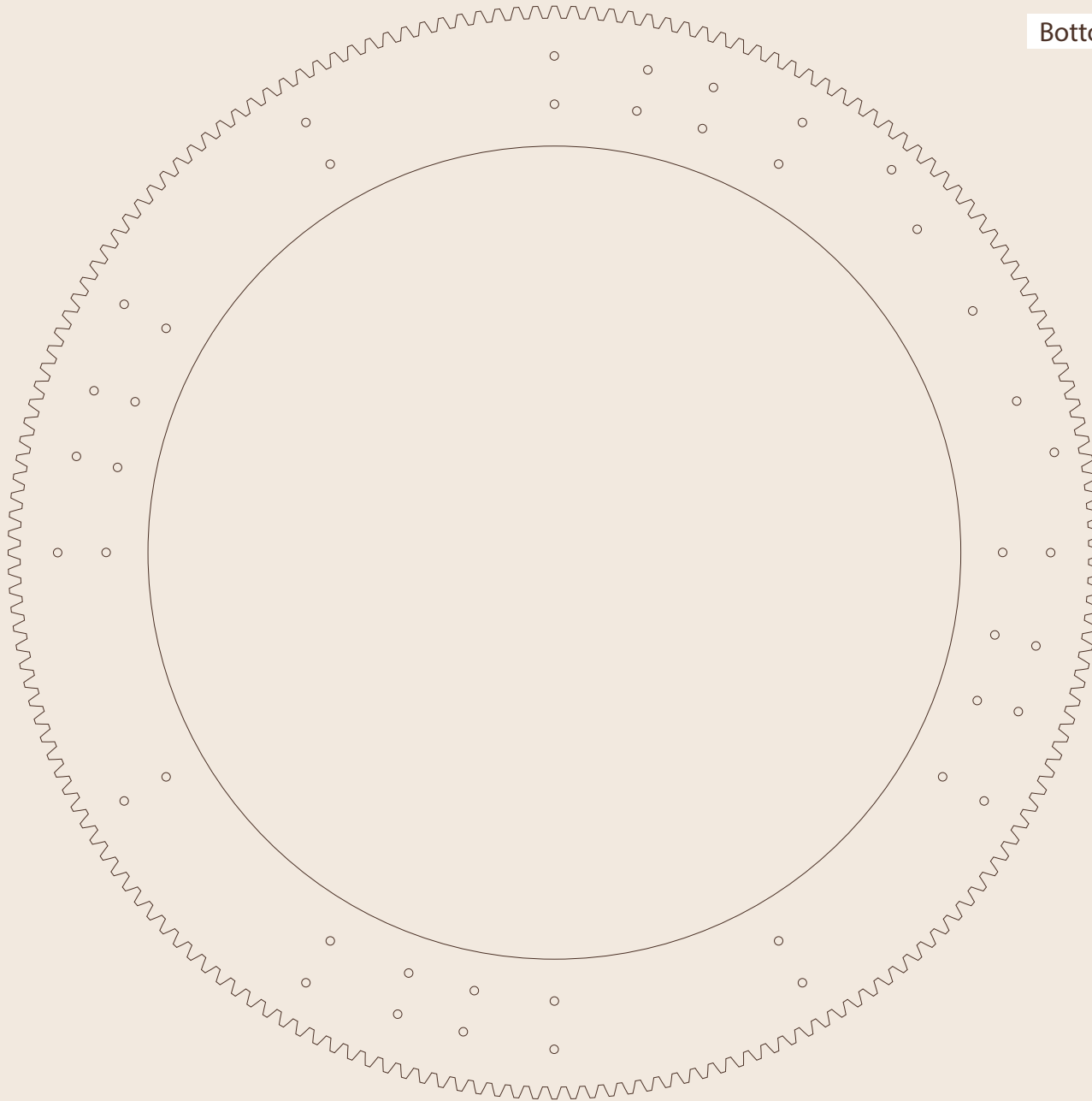
Connect to an outer with:
M2, Philips head screw, 8mm, 16

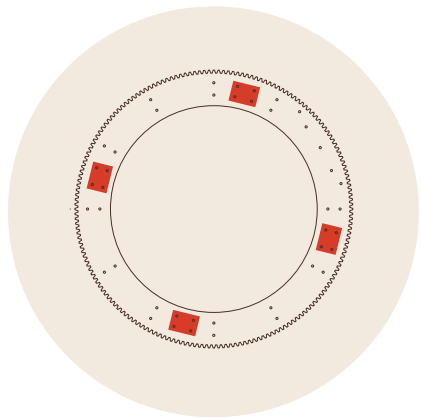




60 x Needle

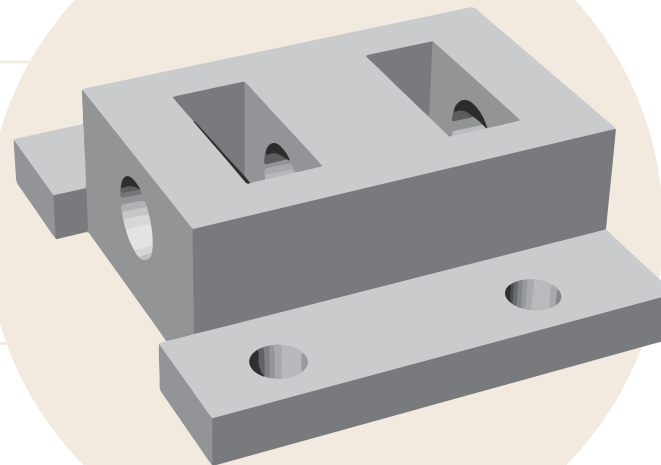
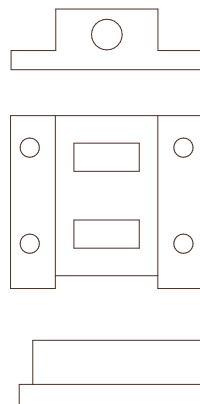
Bottom surface (big gear) + motor gears

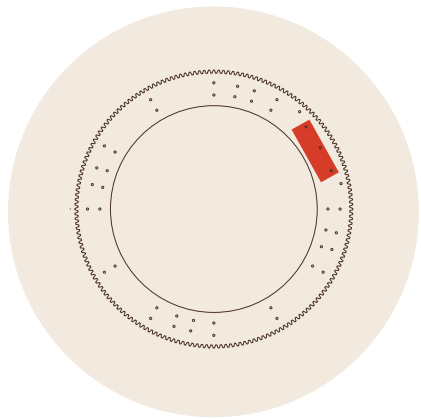




4 x Small bearings' holder

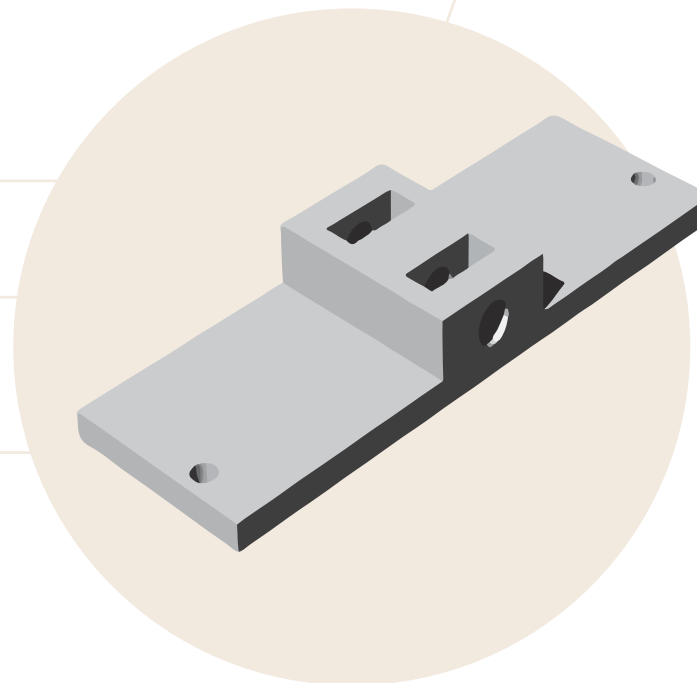
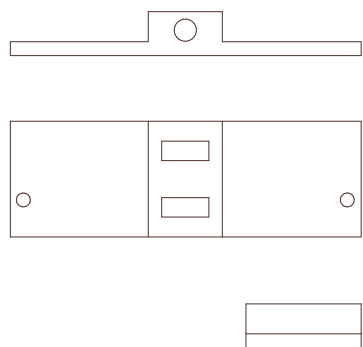
each bearing use:
1 x M5,DIN912 hex screw, 25mm
4 x M3,DIN912 hex screw, 12mm

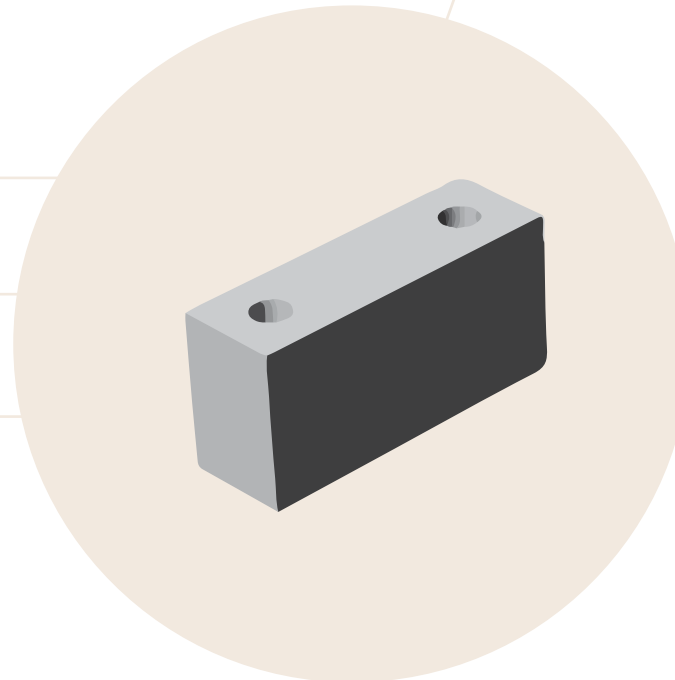
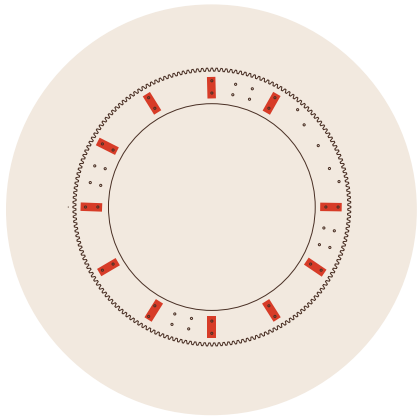




Big bearings' holder

each bearing use:
1 x M5,DIN912 hex screw, 25mm
2 x M3,DIN912 hex screw, 12mm





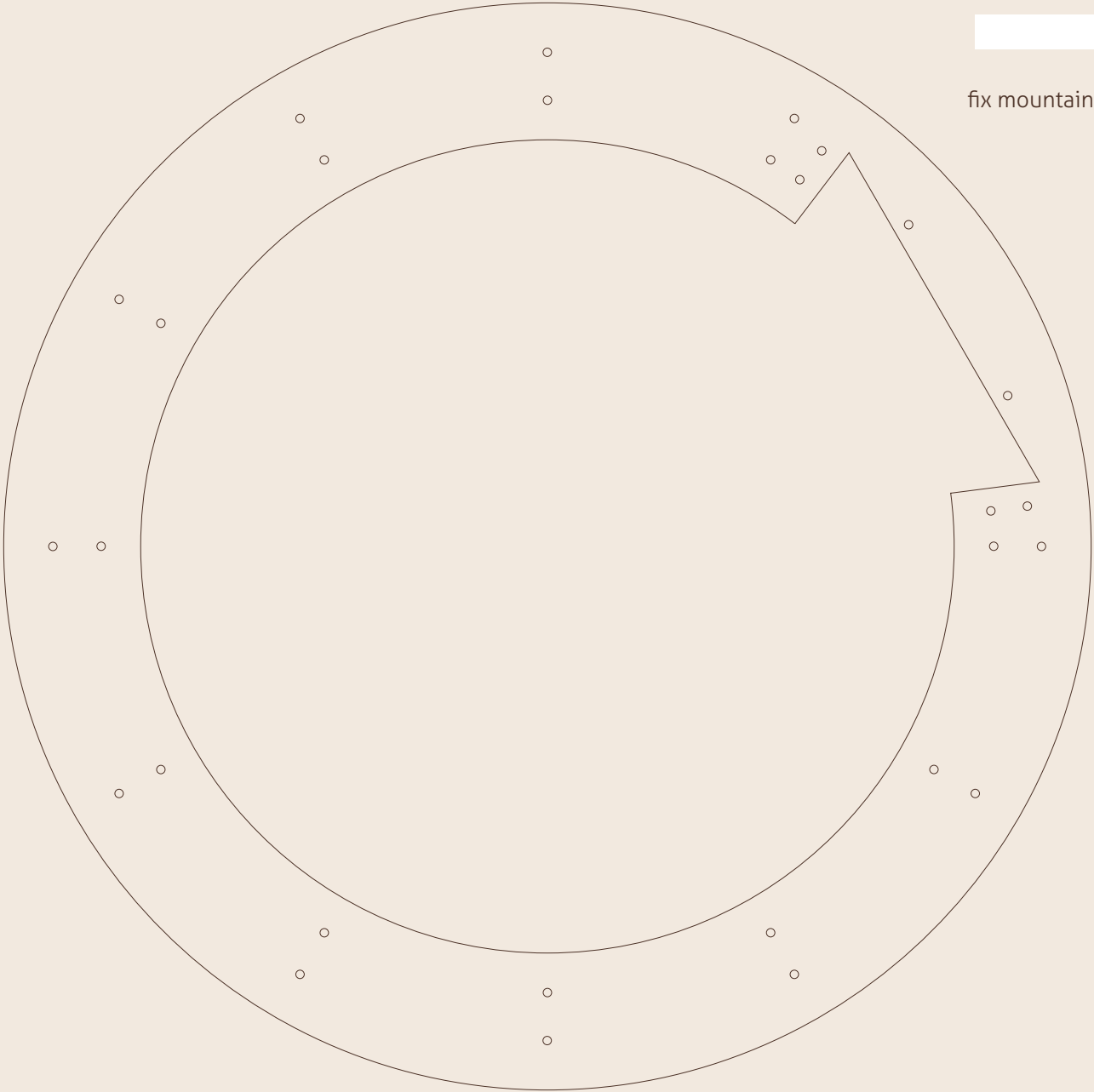
11 x Connector

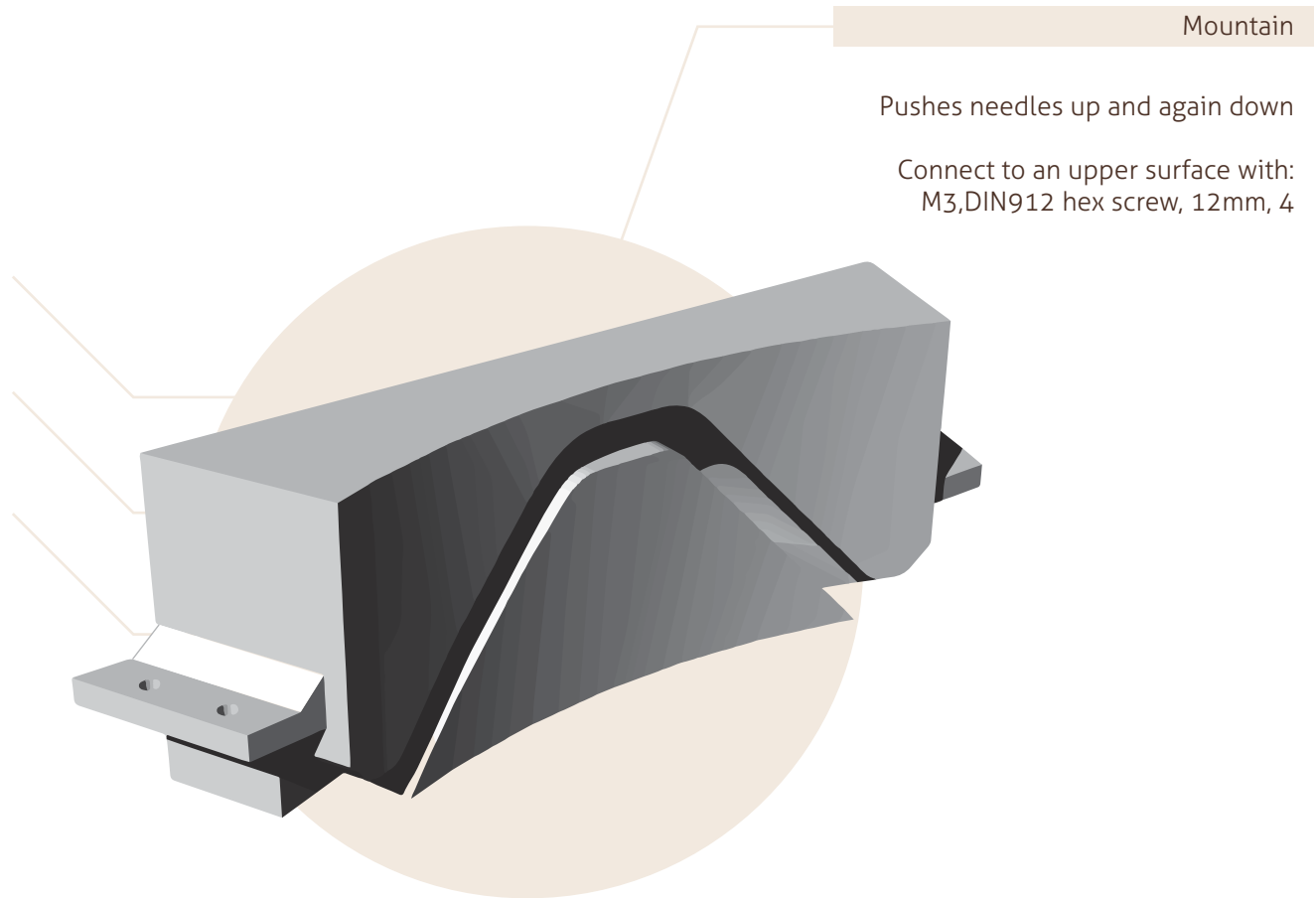
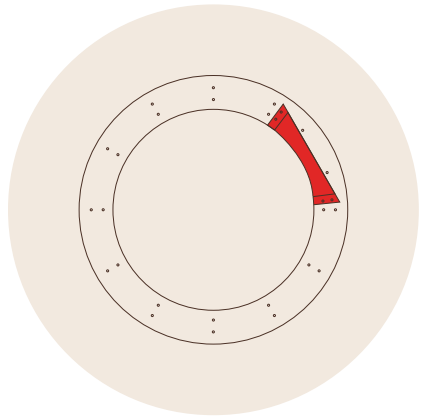
connects upper and bottom plates

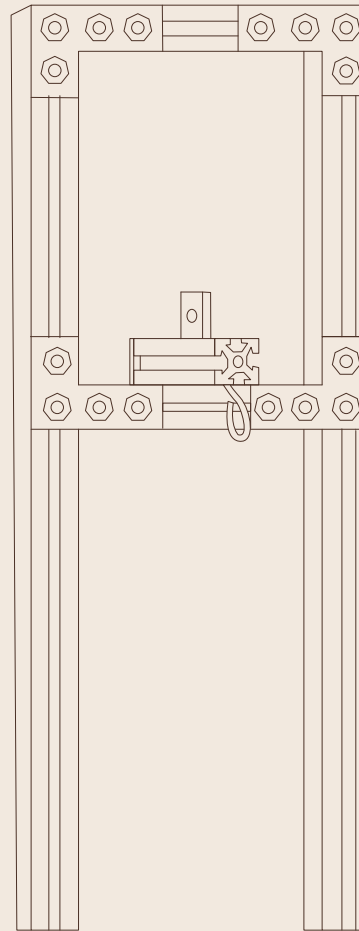
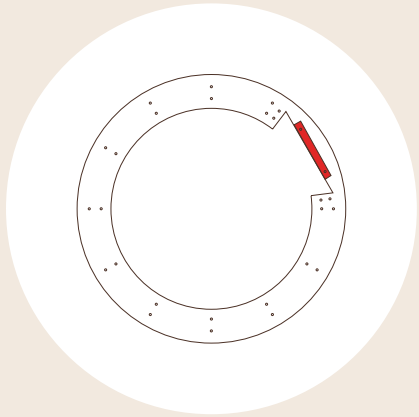
Connect to an upper surface with:
M3, DIN912 hex screw, 30mm, 22

Upper surface

fix mountain and makerbeam parts here





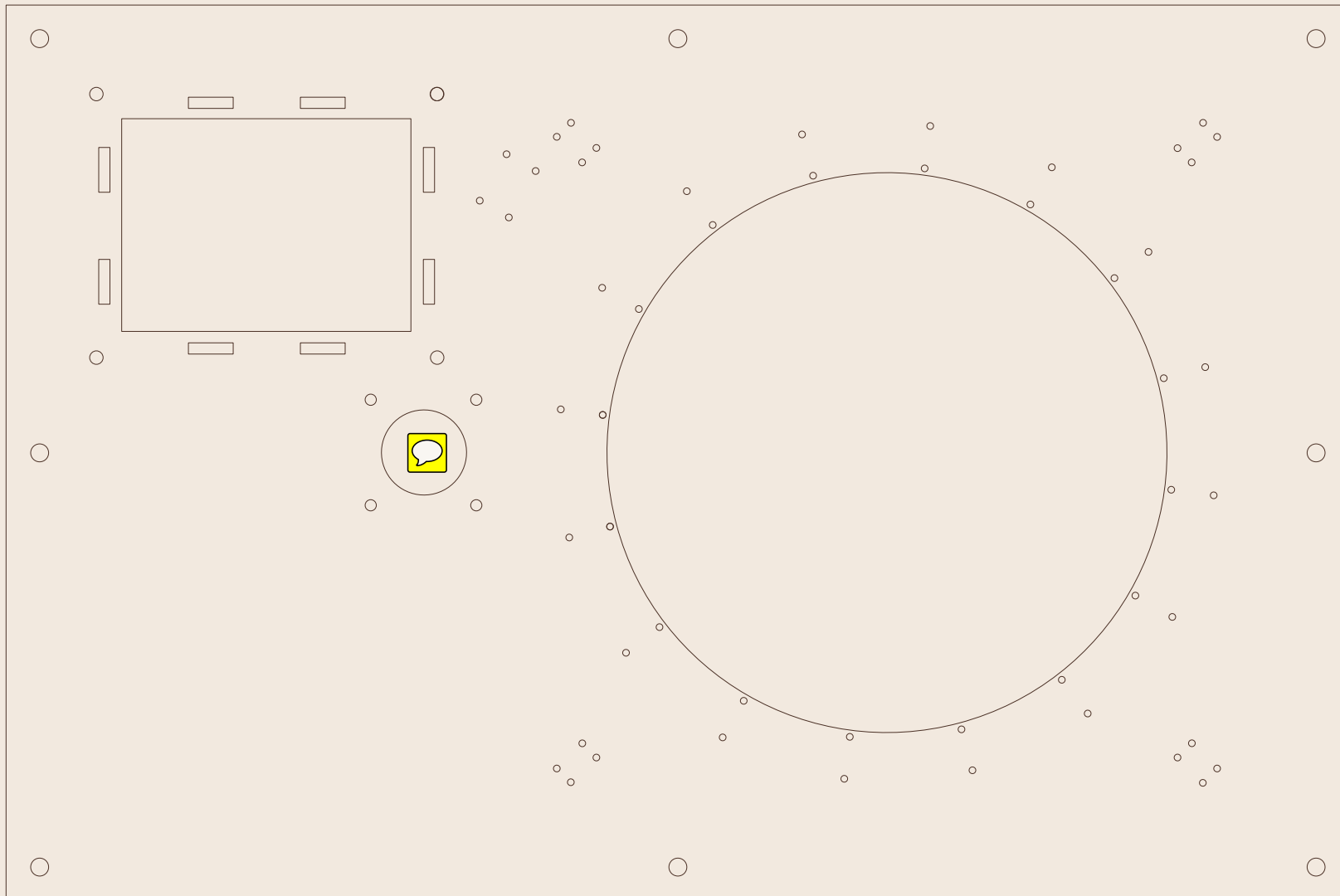


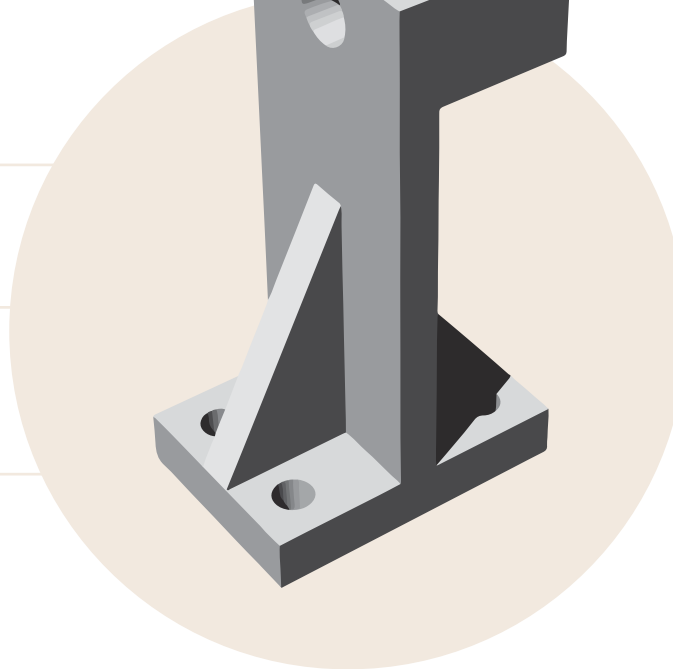
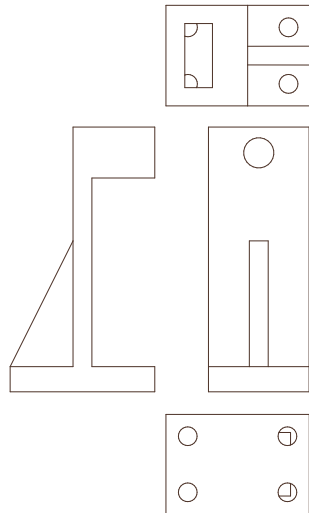
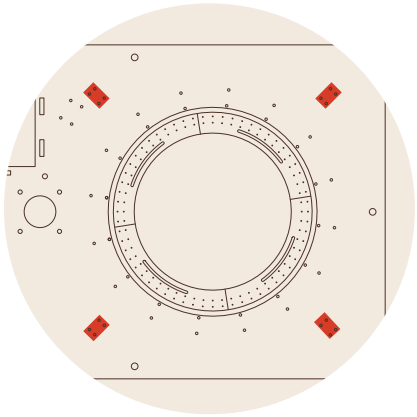
Yarn-feeder

Use 2 x 200mm beam
2 x 60mm beam
1 x 40mm beam
made out of makerbeam

Connect to a plate with:
M3,DIN912 hex screw, 12mm, 3;
Use makerbeam Lshape x 4;
makerbeam screws, 15

here will be mounted all the machine parts





4 x Z-shape

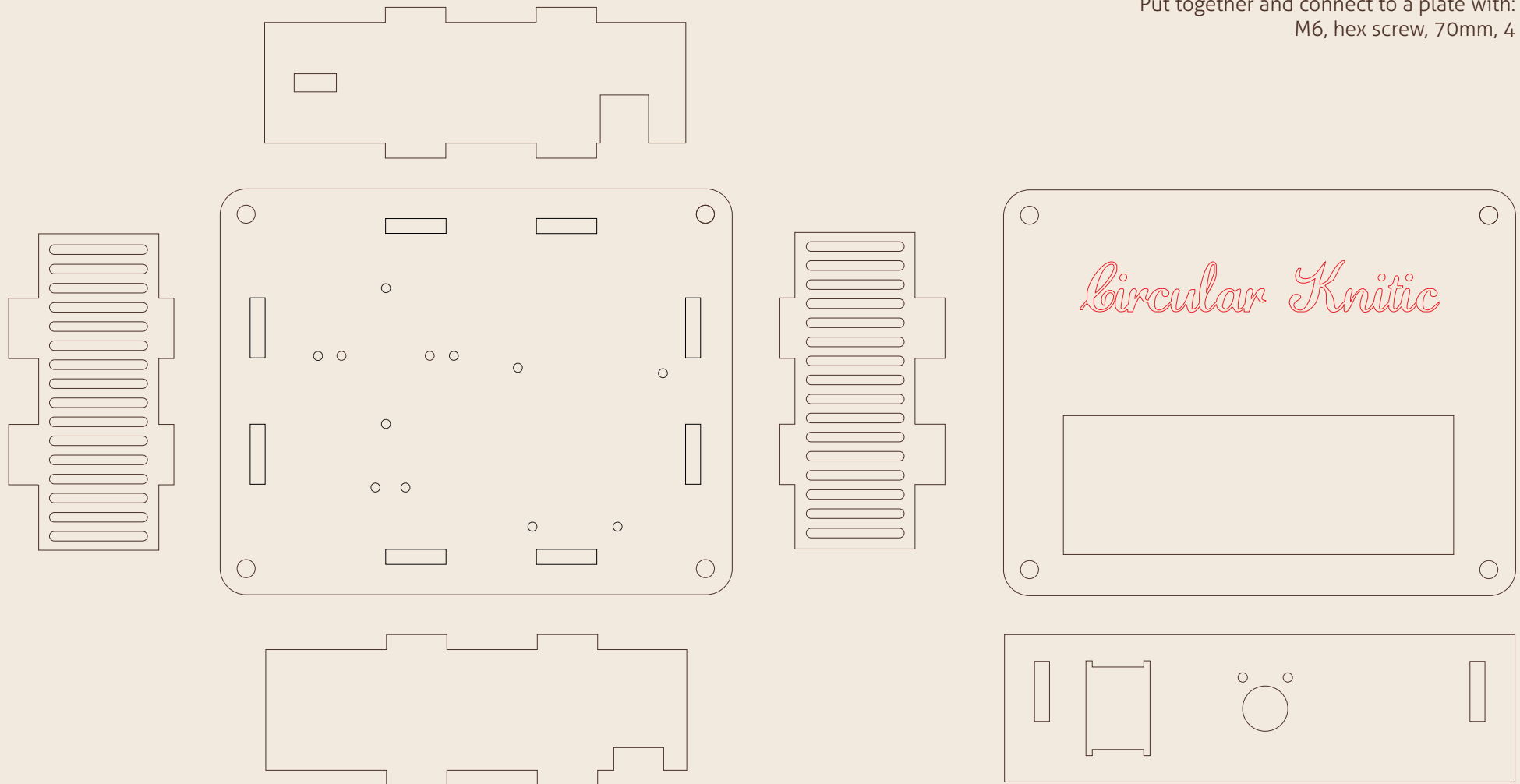
keeps the surfaces down and doesn't
allow to move them up

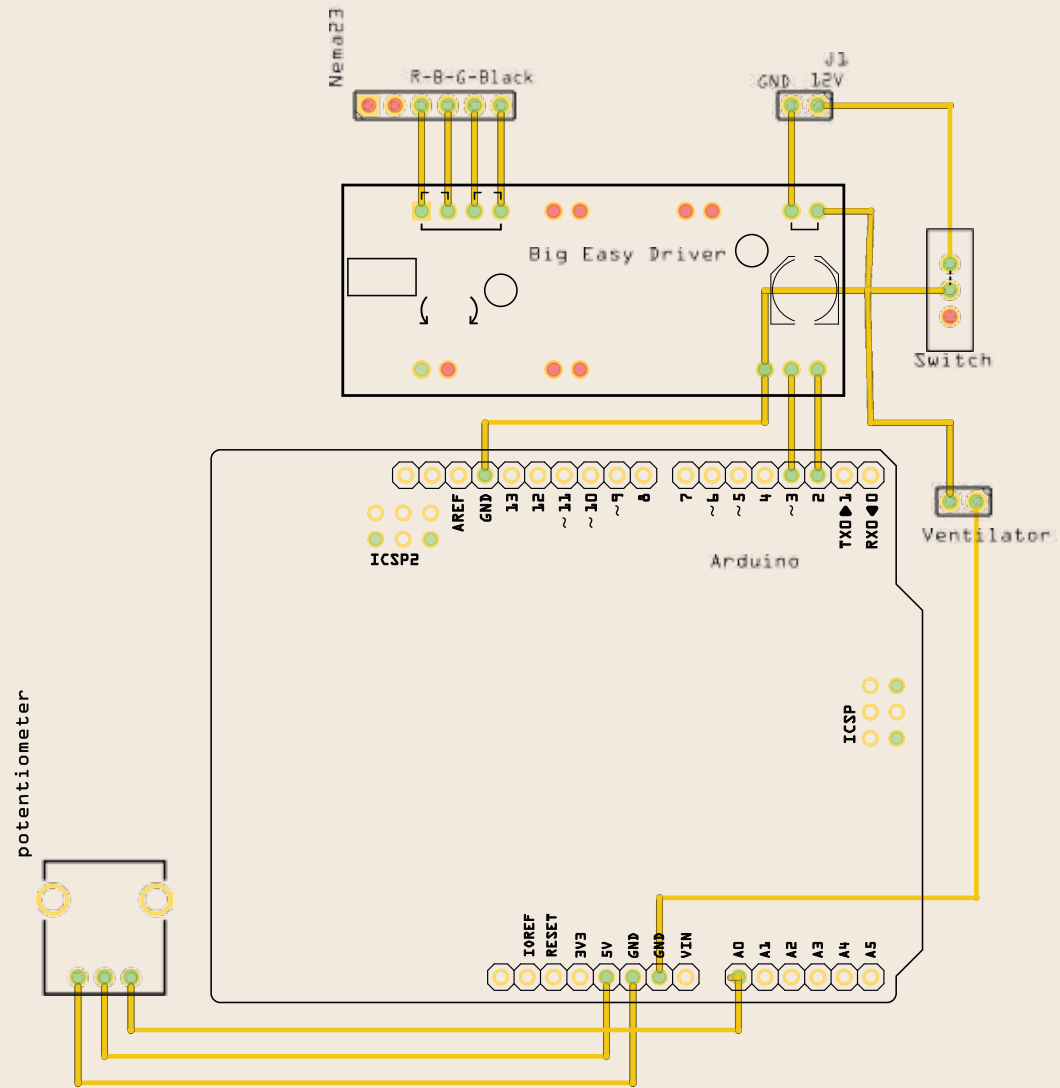
Place a bearing with:
M5,DIN912 hex screw, 16mm, 4.
Connect to a plate with:
M3,DIN912 hex screw, 12mm, 16

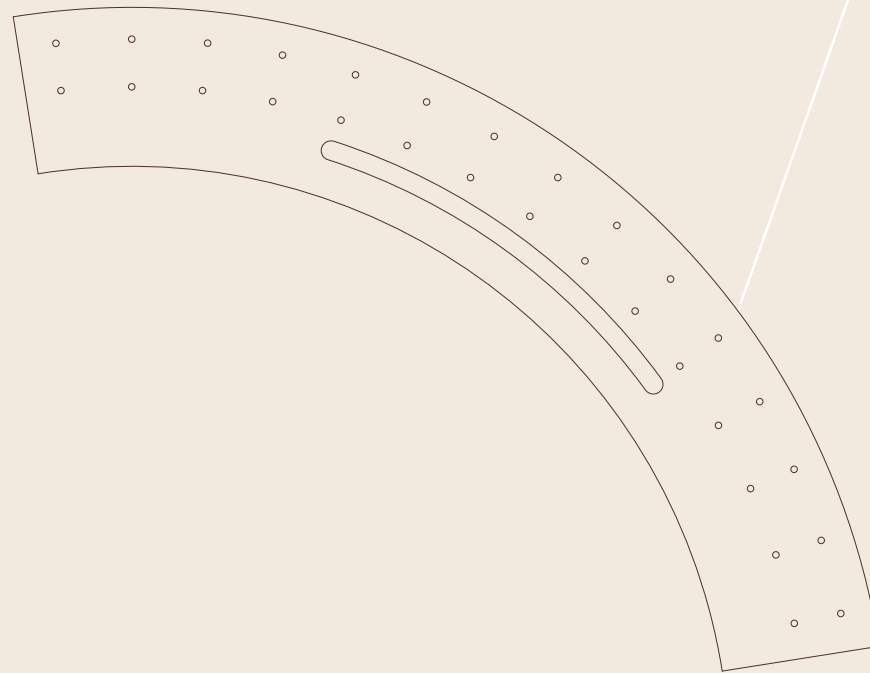
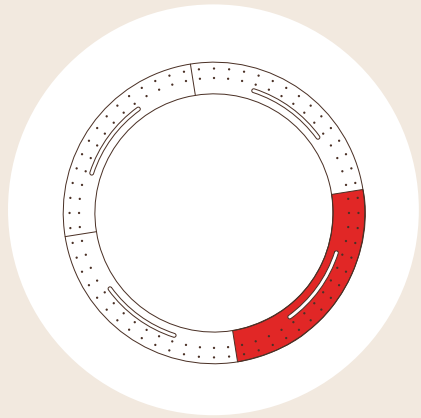
Box of electronics

here goes all the cables, basically: stepper motor driver, ventilator, switch, potentiometer, arduino, etc.

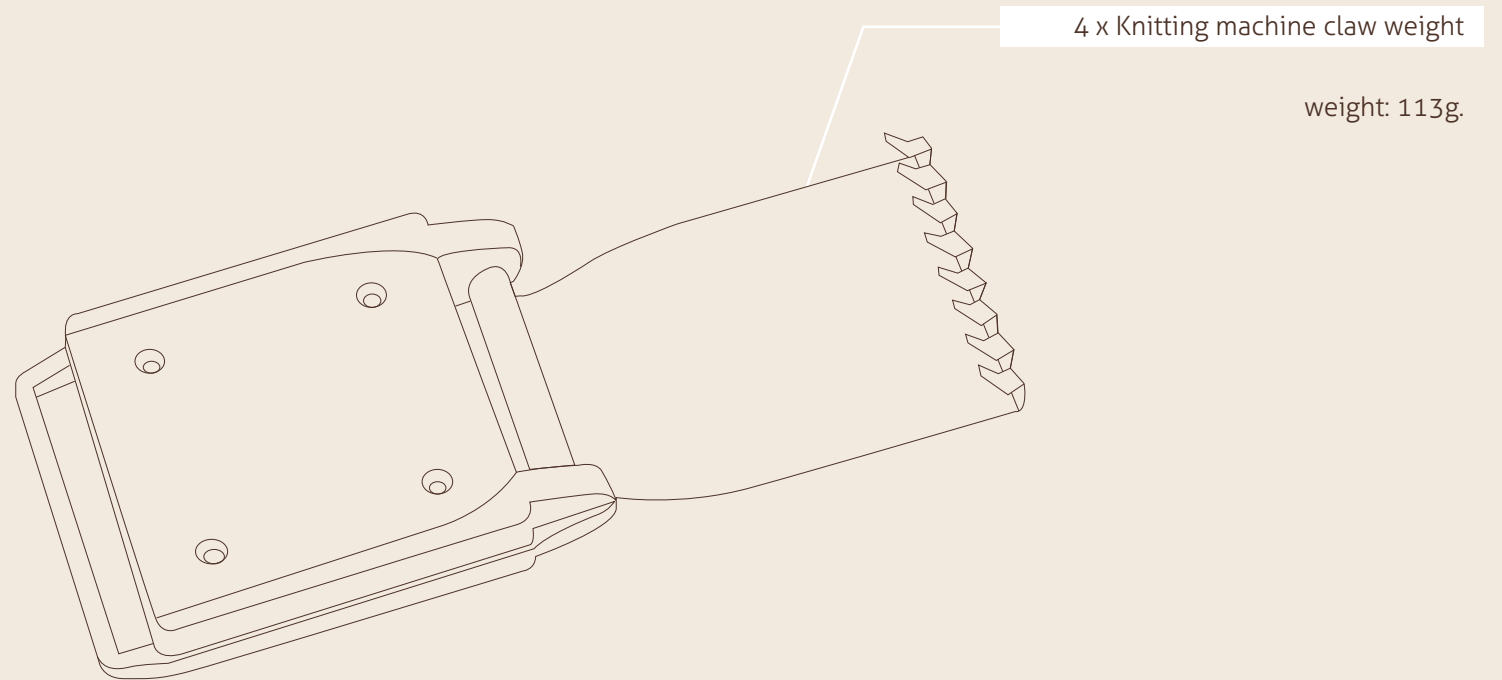
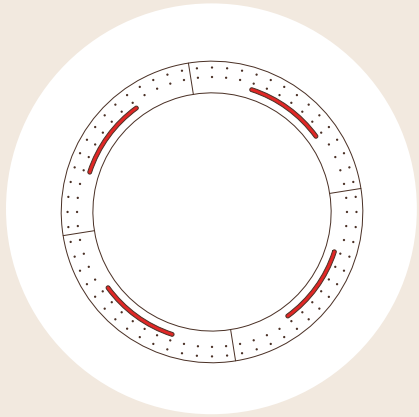
Put together and connect to a plate with:
M6, hex screw, 70mm, 4





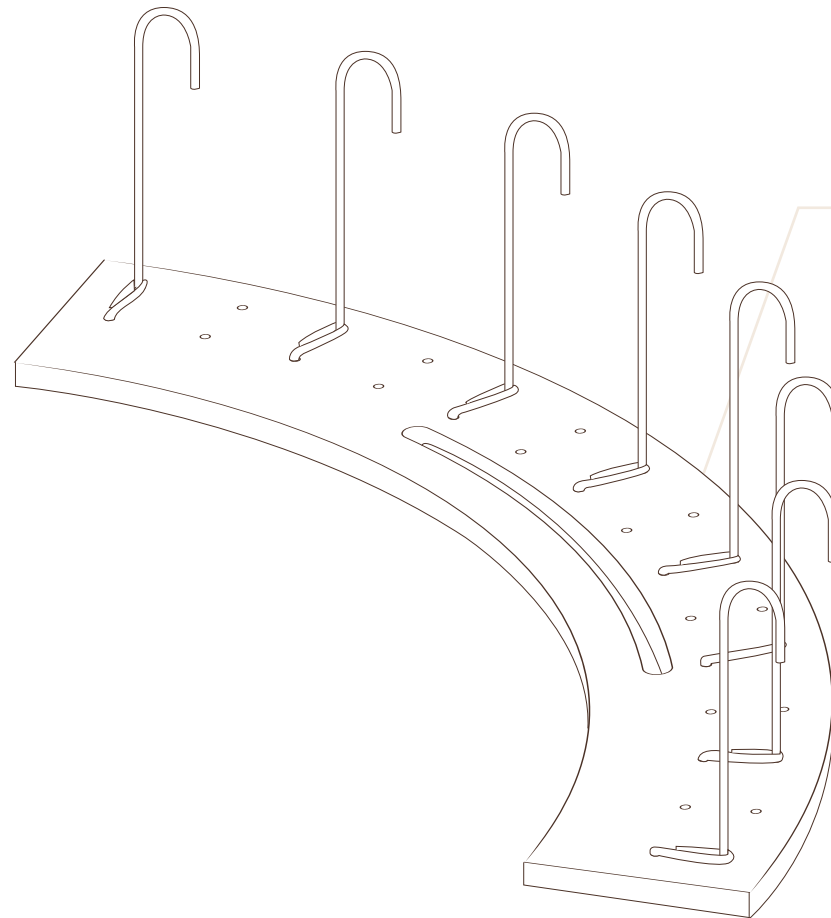
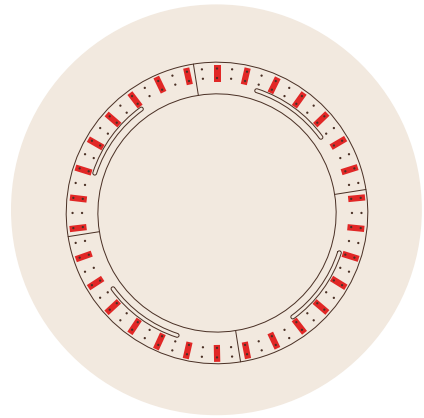


4 x weight holder



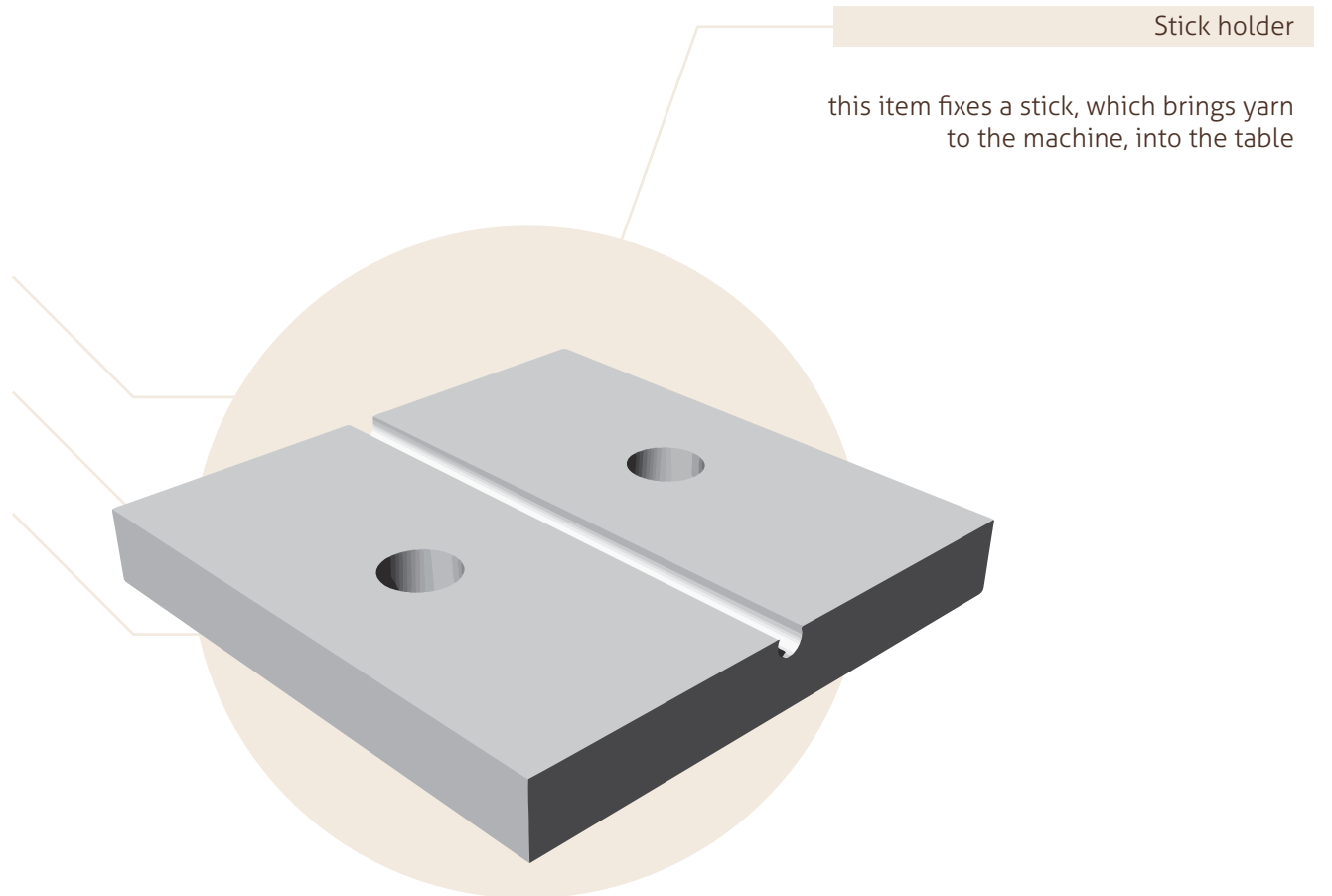
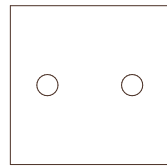
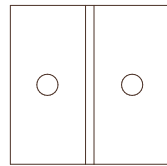
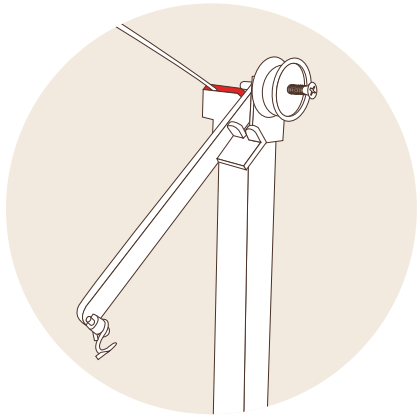
4 x Knitting machine claw weight

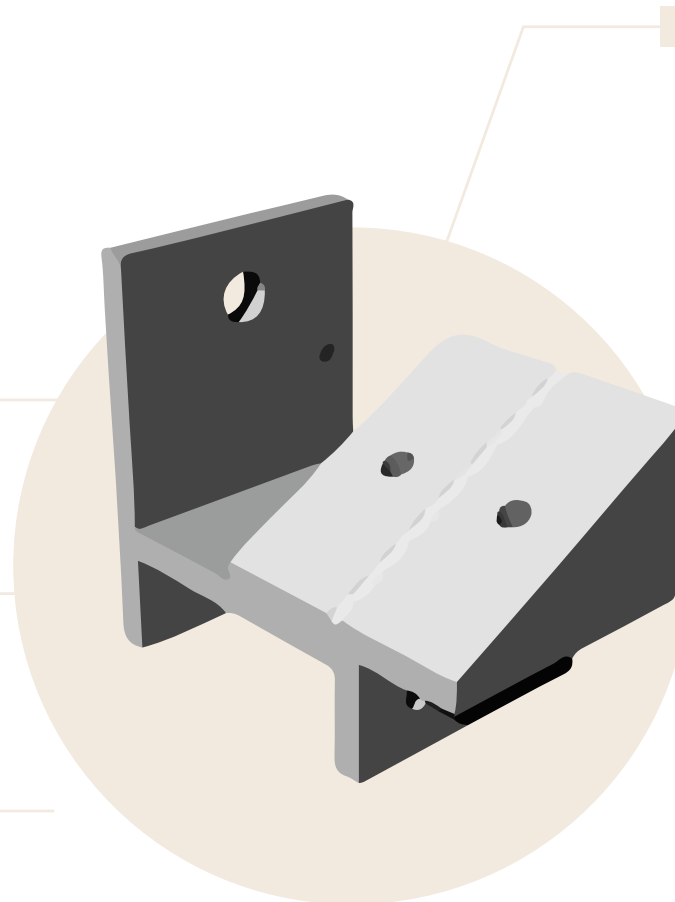
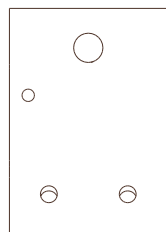
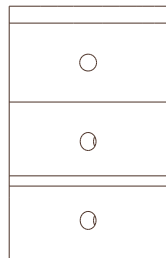
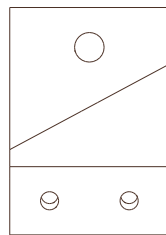
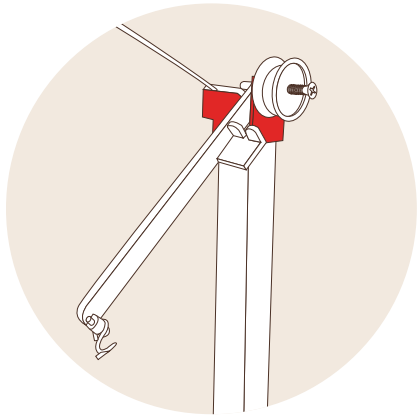
weight: 113g.



30 x Paper clip

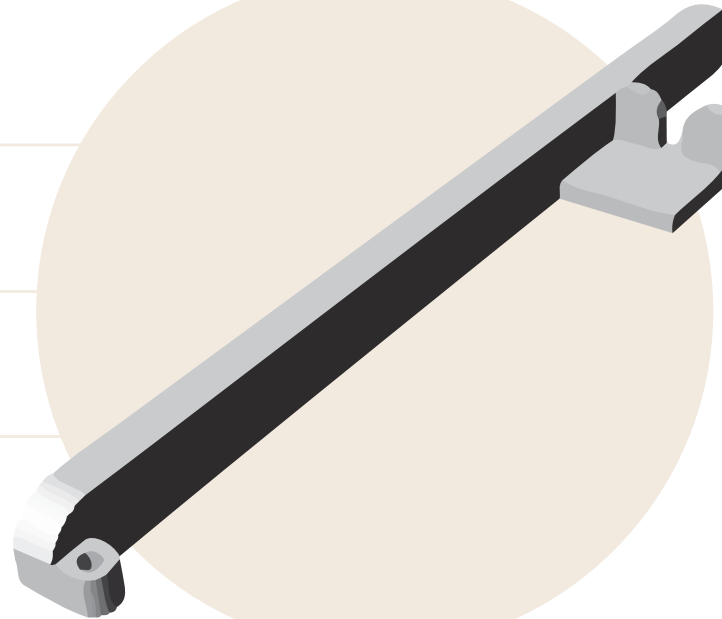
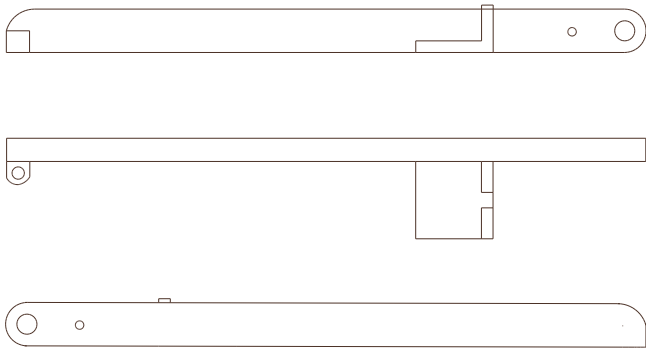
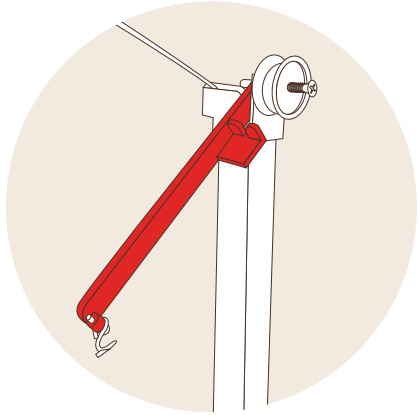
long: 50mm.





1 x Connector

mechnism for yarn tensioner.
Connects to the structu

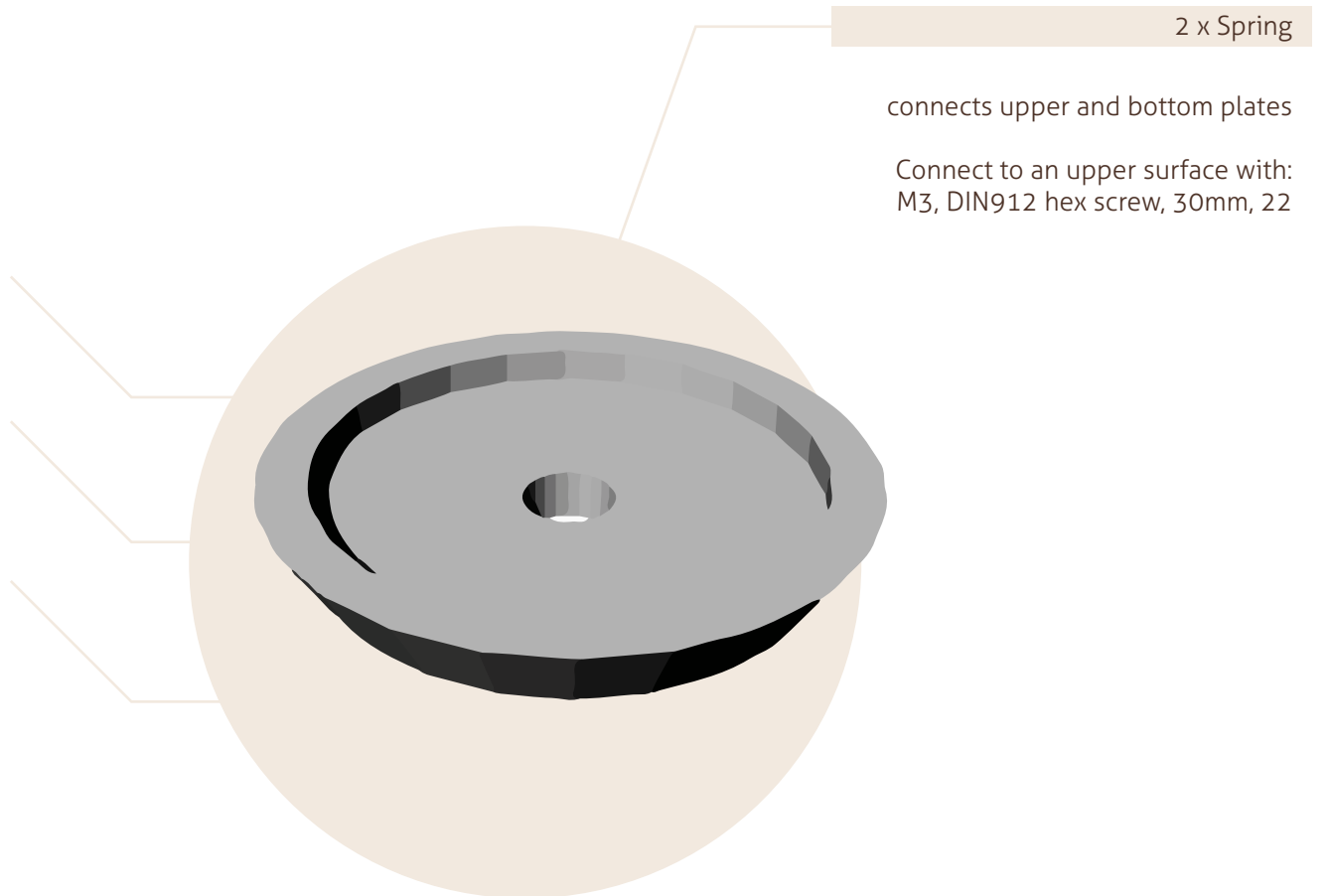
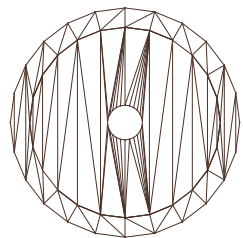
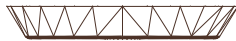
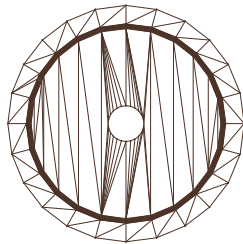
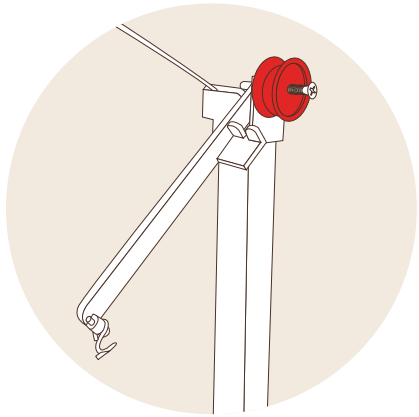


11 x Connector

connects upper and bottom plates

Connect to an upper surface with:
M3, DIN912 hex screw, 30mm, 22

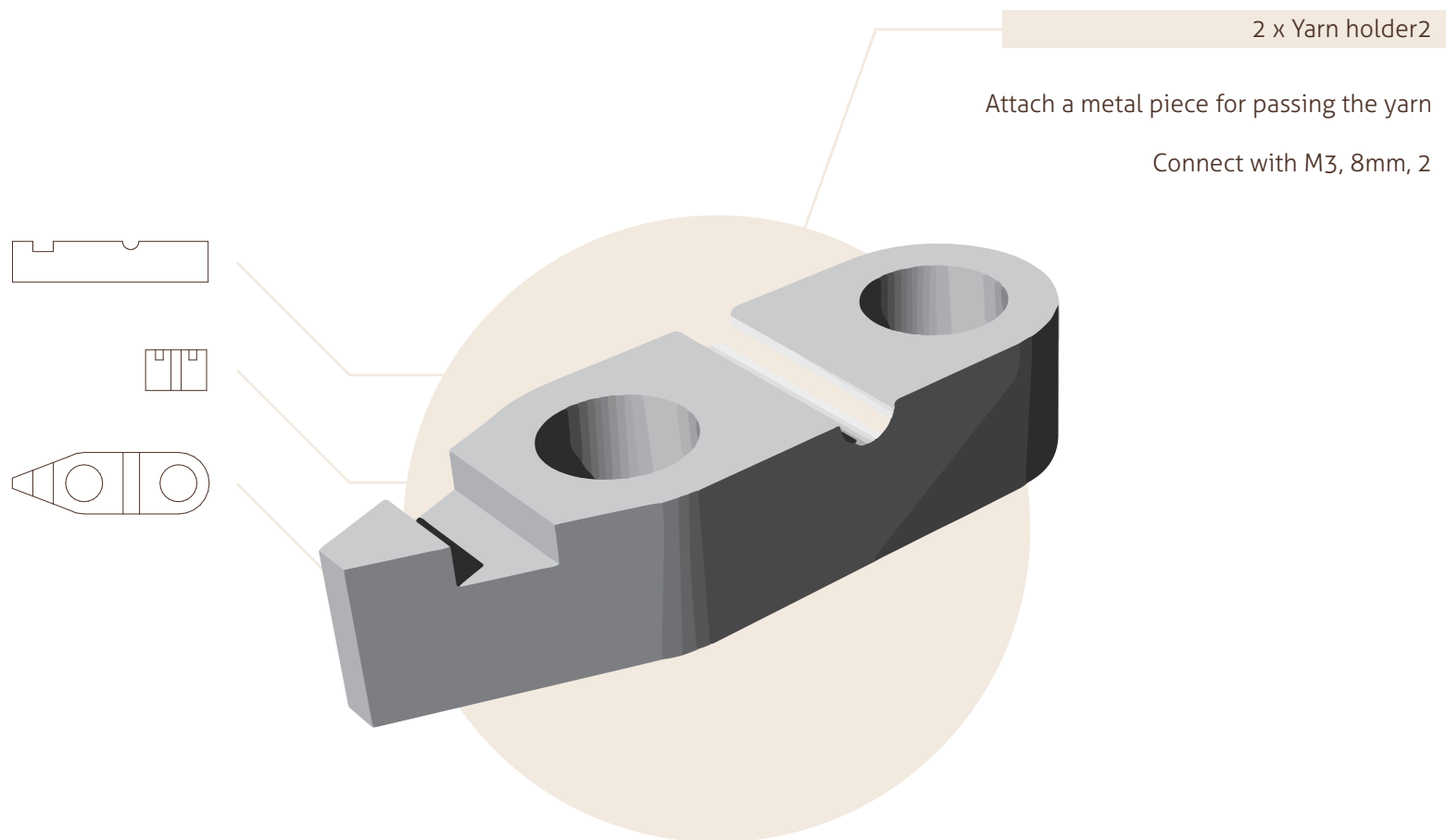
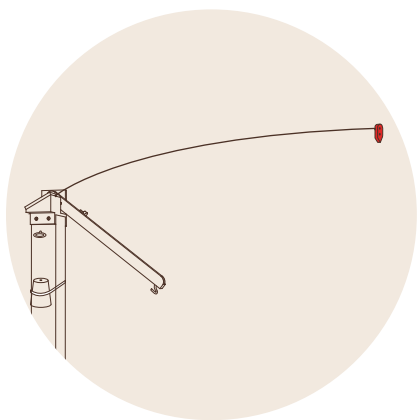


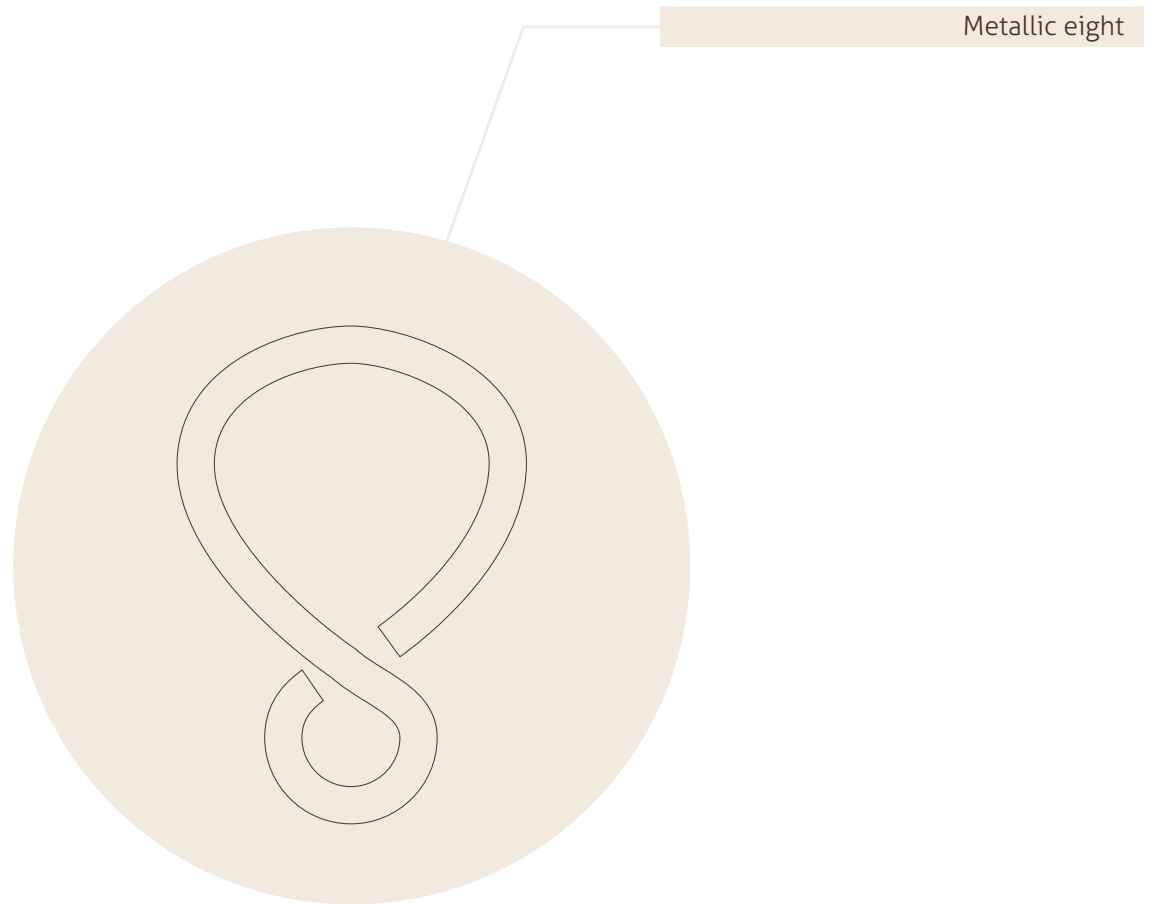
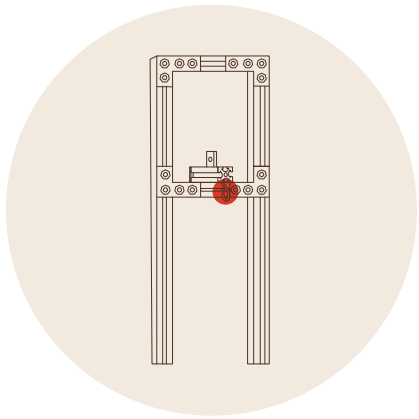
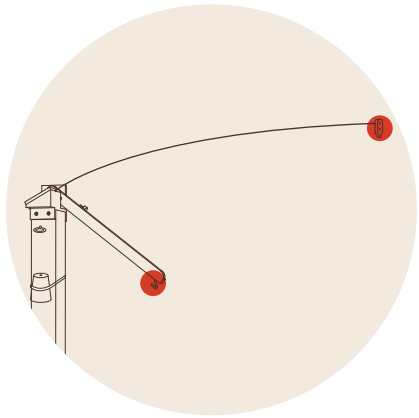


2 x Spring

connects upper and bottom plates

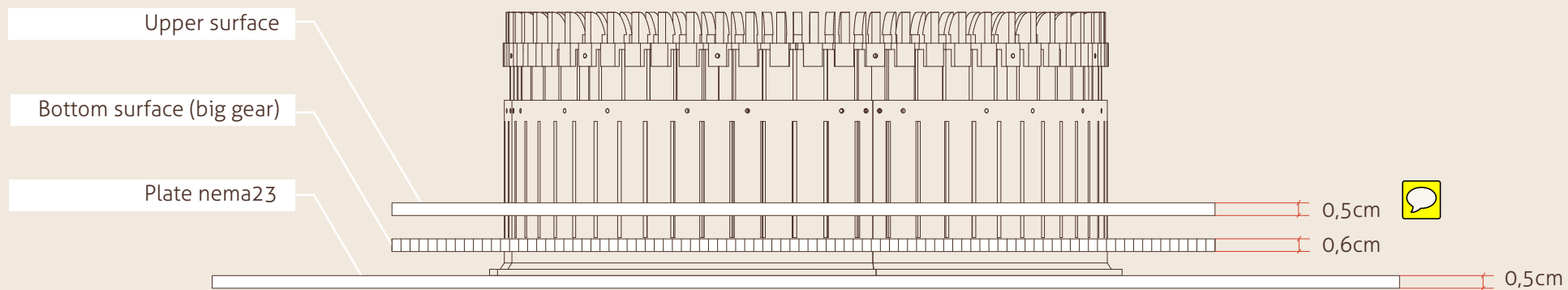
Connect to an upper surface with:
M3, DIN912 hex screw, 30mm, 22



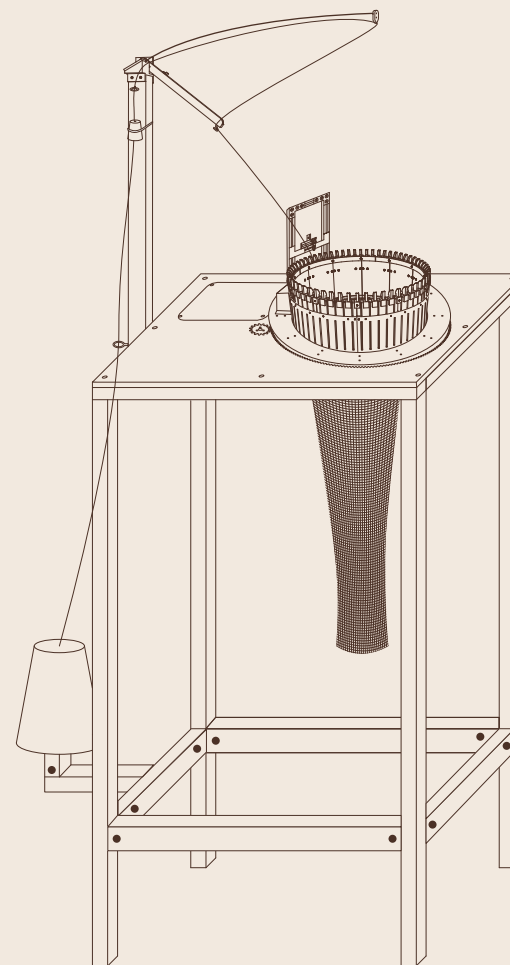
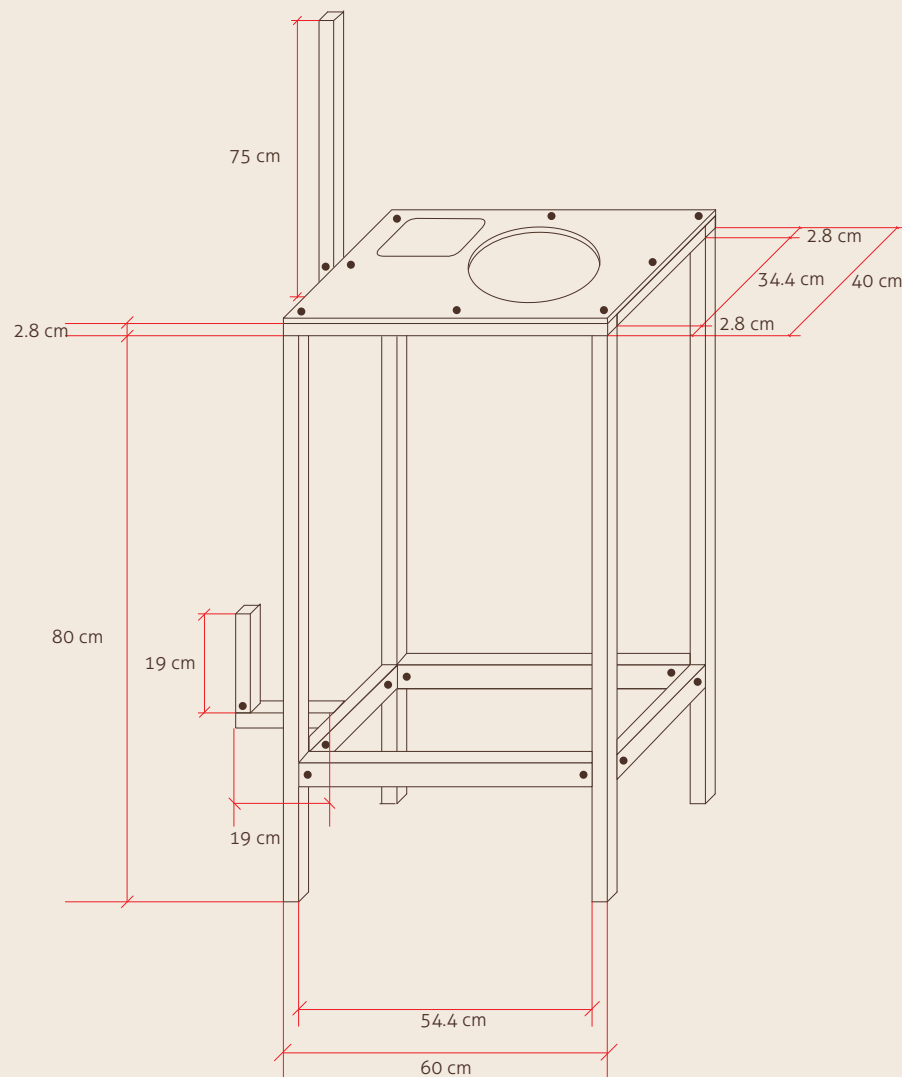


Metallic eight

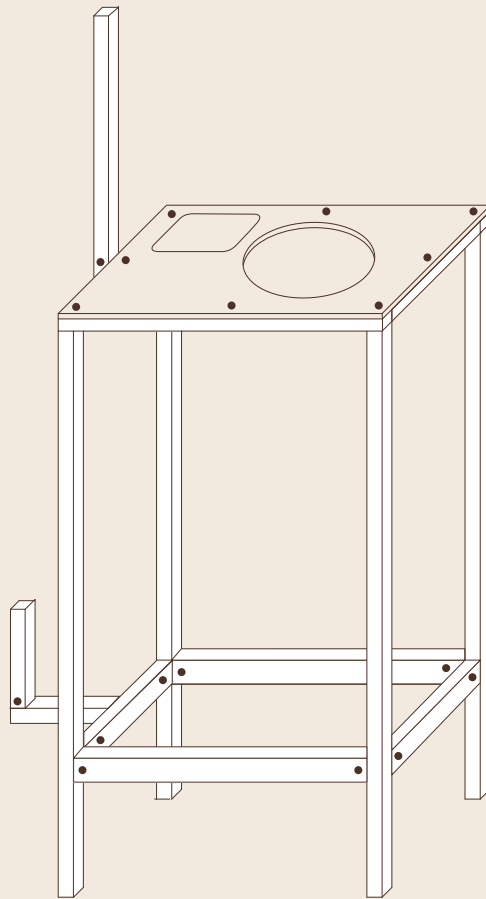
thickness: plate and surfaces



Circular Knitic table




Wood parts to create the machine frame



 80cm x 2.8cm (4 pieces)

 60cm x 2.8cm (2 pieces)

 54.4cm x 2.8cm (2 pieces)

 34.4cm x 2.8cm (4 pieces)

 18cm x 2.8cm (2 pieces)

Screws circular Knitic

| Size | Type | Long | Quantity | Use |
|--------|--------------------------|------------------|----------|---|
| M2 | Philips head screw | 8mm | 16 | attach inners with outer |
| M2 | Philips head screw | 12 mm | 28 | attach inners with outer connections, yarn holders |
| M2 | steel nut | | 44 | |
| | | | | |
| M3 | Screw button head socket | 6mm | 24 | makerbeam |
| M3 | DIN912 hex screw | 12mm | 49 | attach outers to plexi, and z-shape, small and big bearings' holders, mountain, construction from makerbeam |
| M3 | DIN912 hex screw | 16mm | 5 | attach gear on the stepper motor |
| M3 | DIN912 hex screw | 30mm | 22 | attach gear wheel with spacers |
| M3 | steel nut | | 94 | |
| | | | | |
| M5 | DIN912 hex screw | 16mm | 8 | attach stepper motor |
| M5 | DIN912 hex screw | 25mm | 5 | attach bearing |
| M5 | steel nylon lock nut | | 4 | |
| M5 | Philips head | 50mm | 1 | |
| | | | | |
| M6 | hex screw | 70mm | 4 | mount the electronic box |
| M6 | steel nut | | 4 | mount the electronic box |
| M6 | wing steel nut | | 4 | mount the electronic box |
| | | | | |
| 3,0 | hospa screws | 20mm | 94 | mount wood frame |
| Others | | | | |
| | metallic angle | 30x30 x 15 x 2cm | 25 | mount wood frame |



Curated by

David Cuartielles

20th December 2014 - 31th July 2015

Commissioned by

eTOPIA_
center for art
& technology



Zaragoza
AYUNTAMIENTO

More info:

www.knitic.com - www.var-mar.info

Catalog design: Jesús Rodríguez