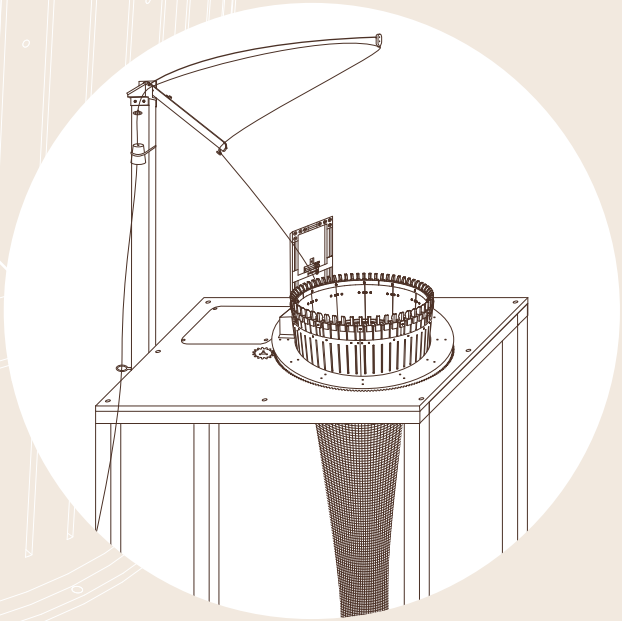
Circular Knitic

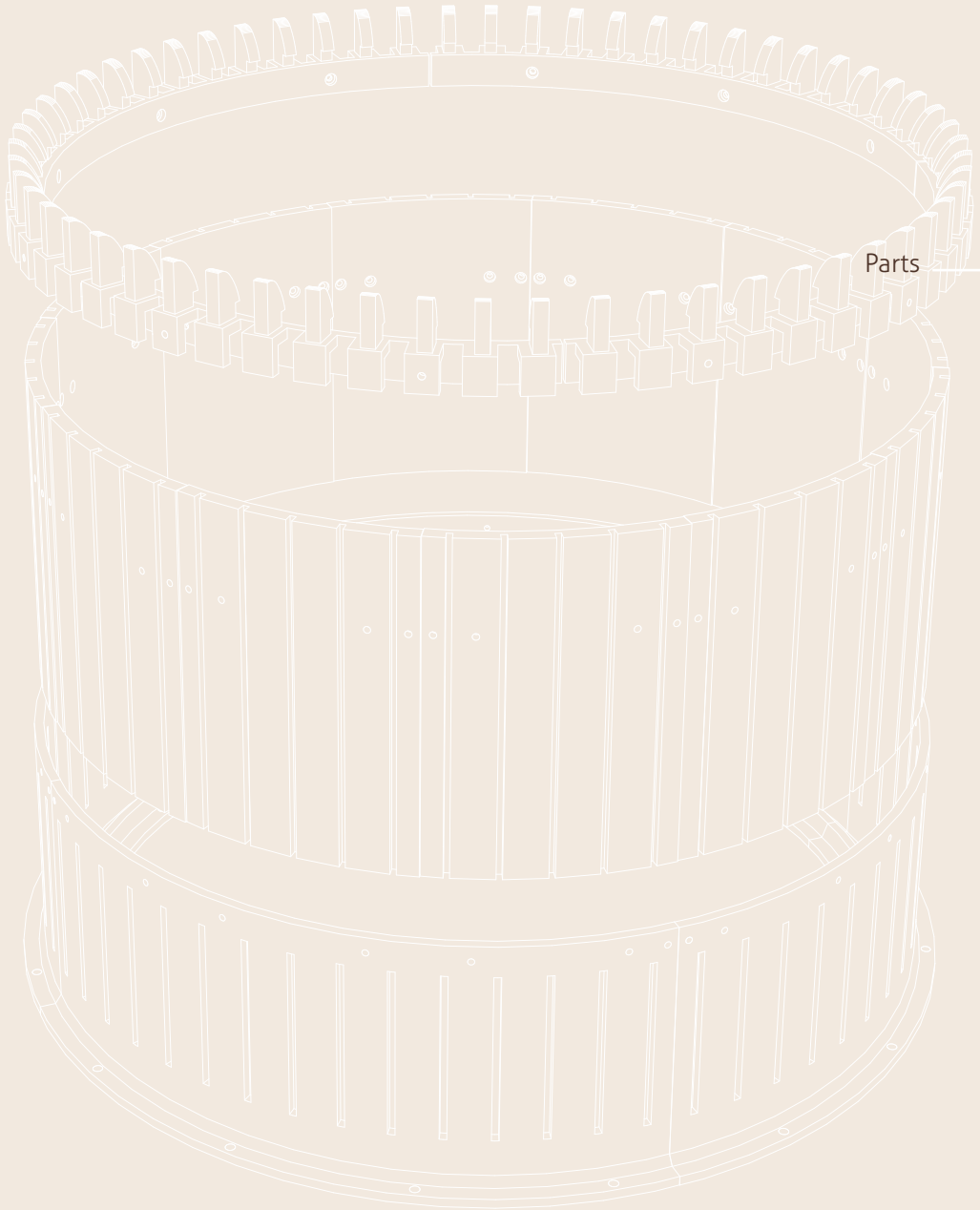
open source knitting machine

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

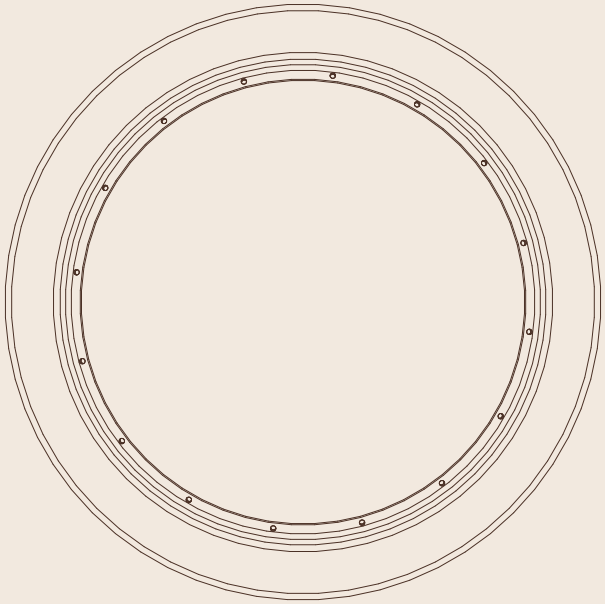
Varvara Guljajeva & Mar Canet

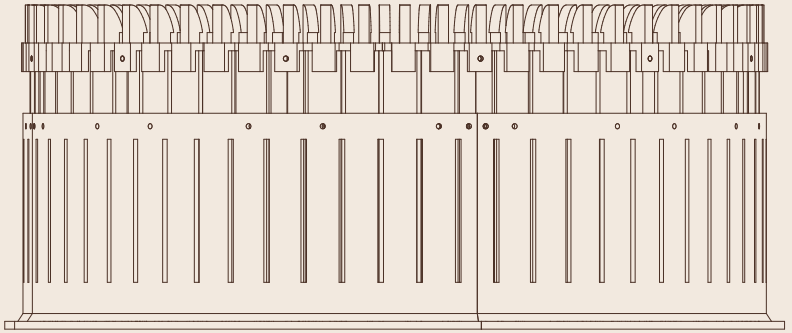
2014

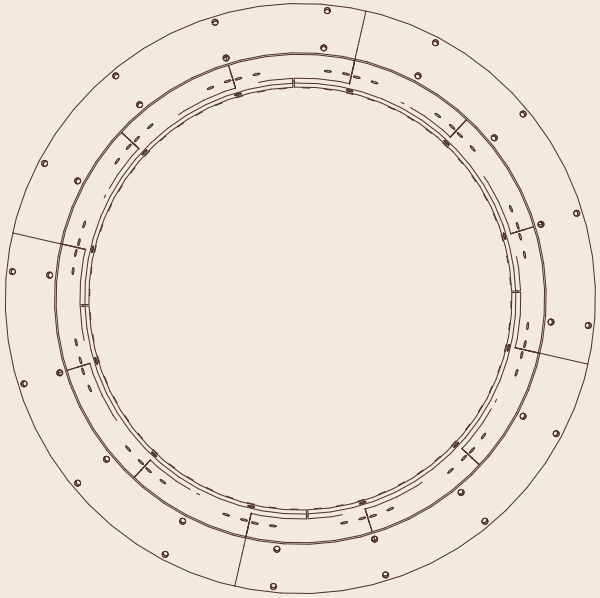


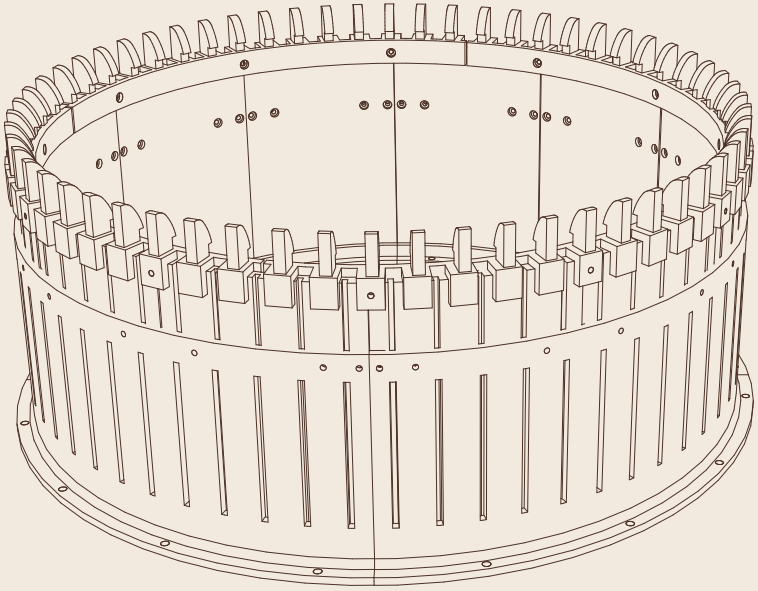


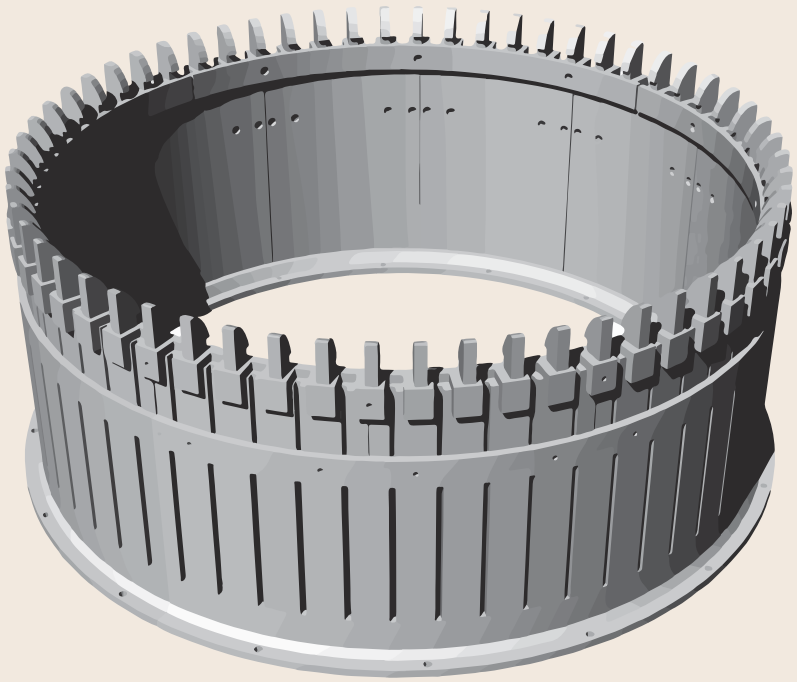
Parts

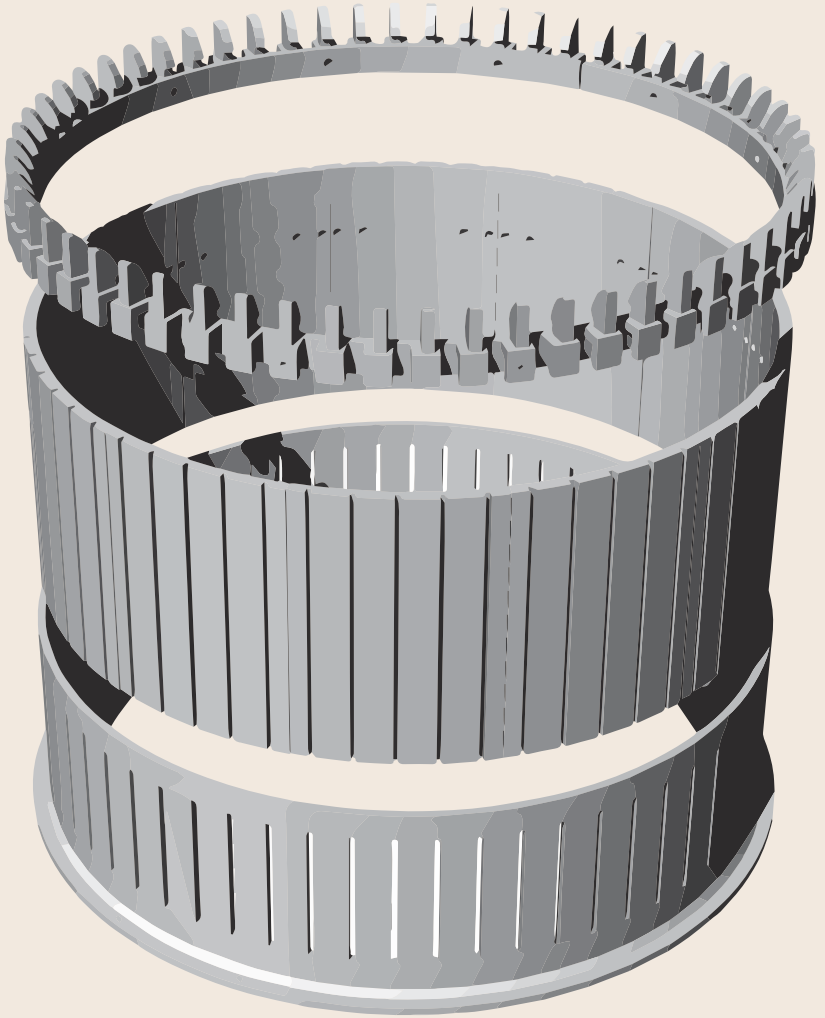


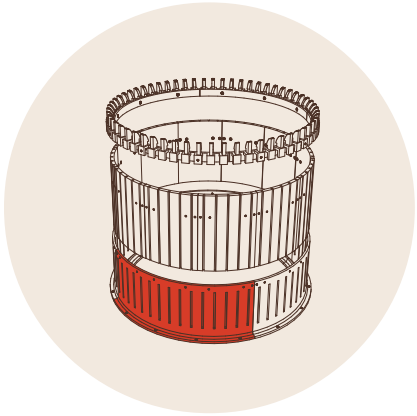


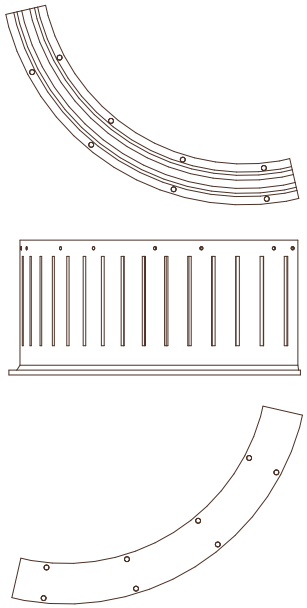


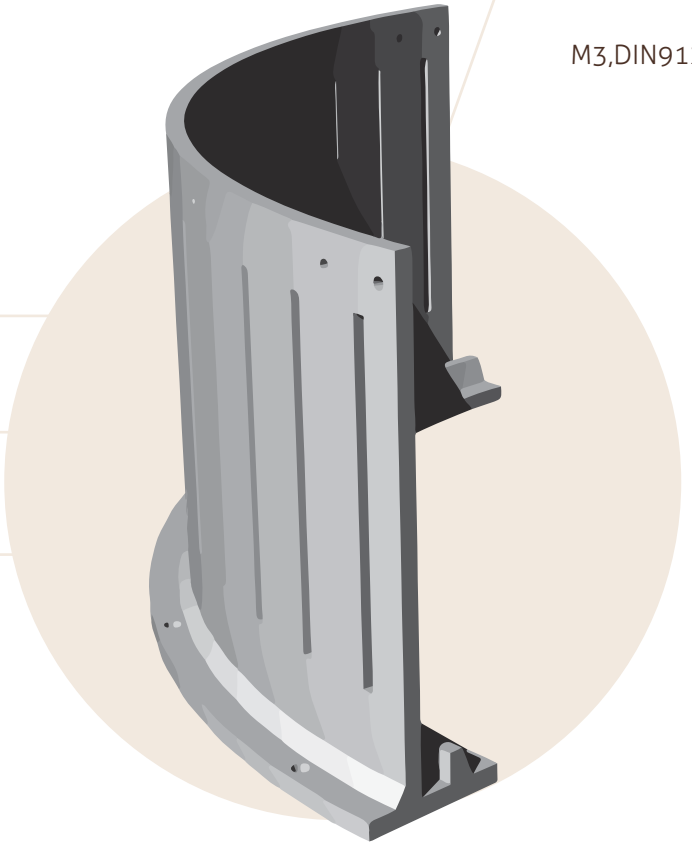






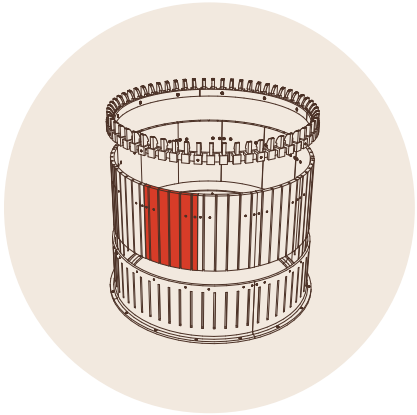


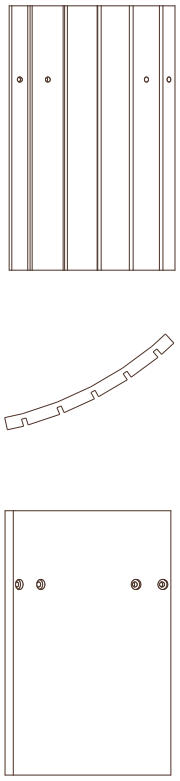


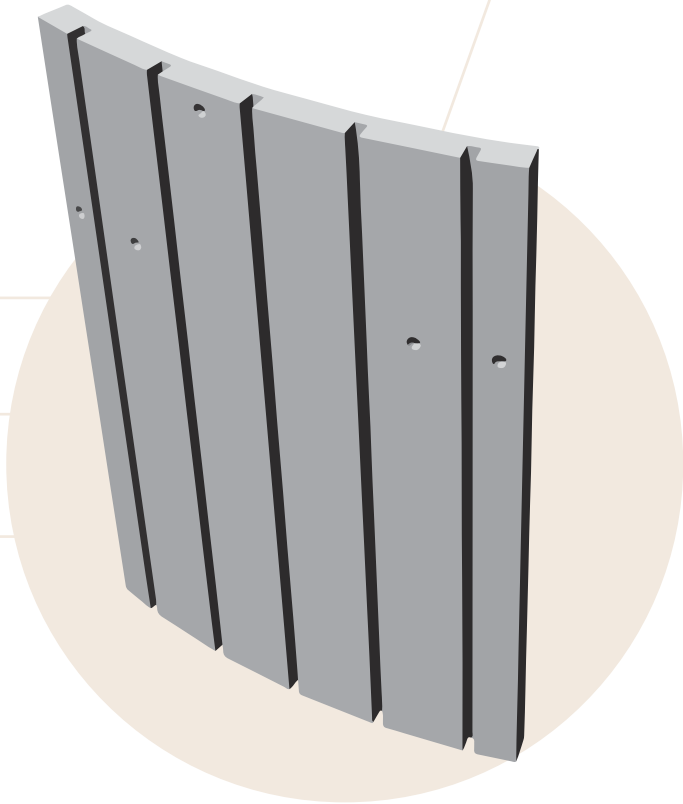


4 x Outer

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



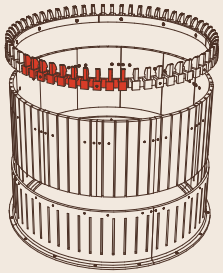


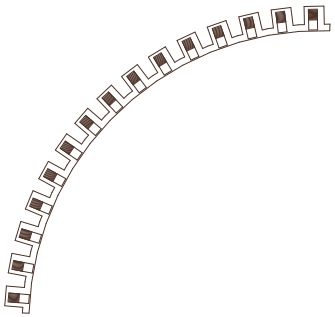


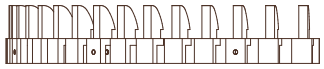
12 x Inner

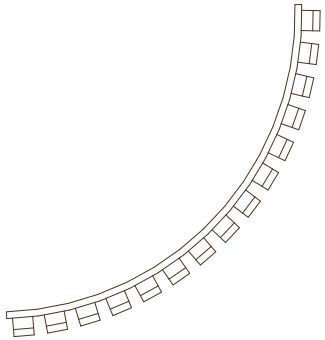
where the needles go

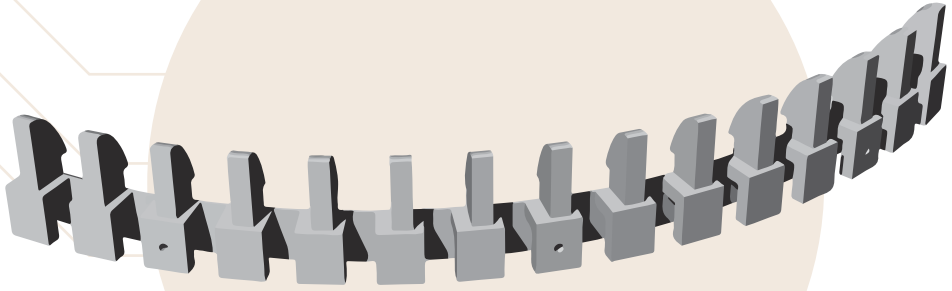
Connect to an outer with:
M2, Philips head screw, 8mm, 16







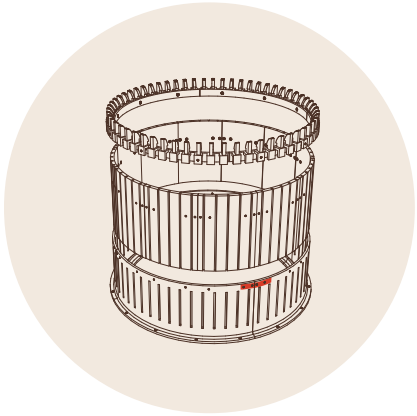




4 x Yarn holder

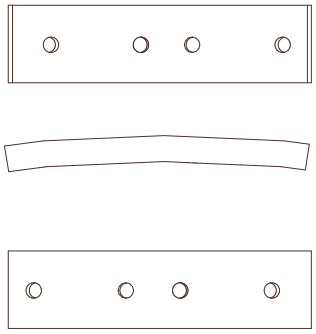
where the needles go

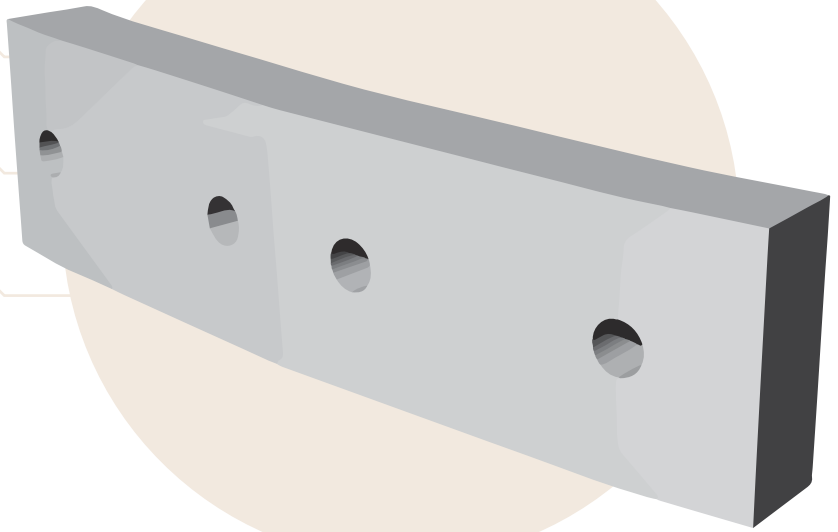
Connect to an outer with:
M2, Philips head screw, 8mm, 16

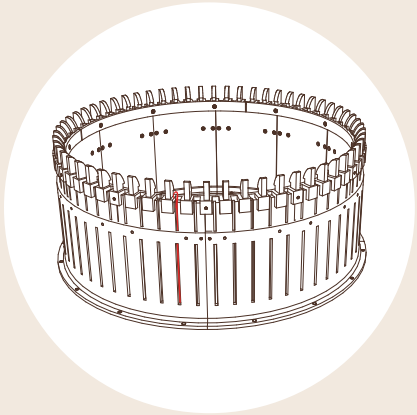


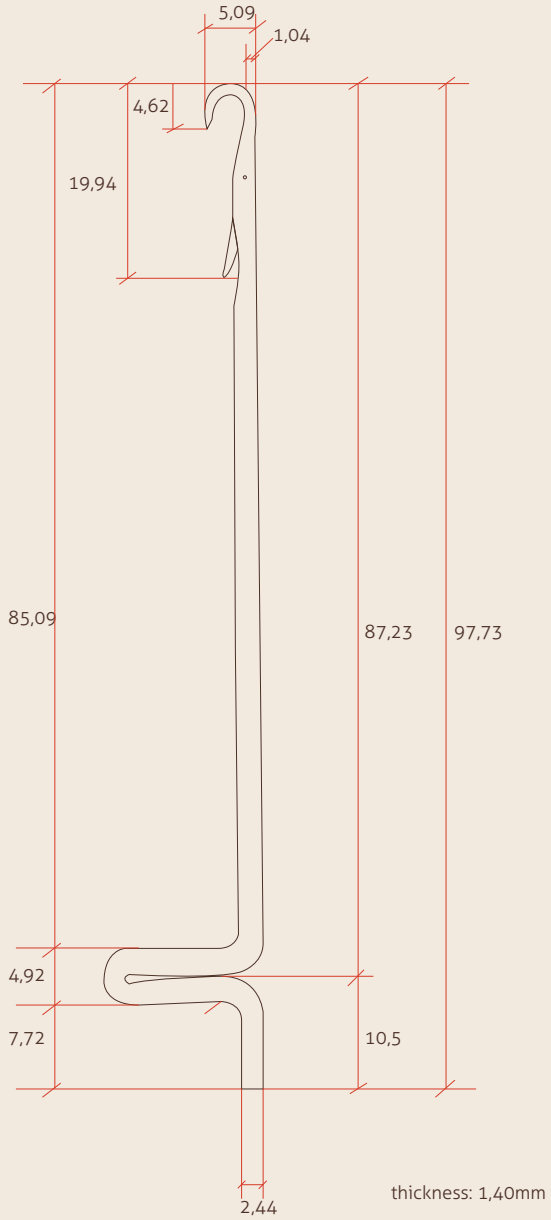
4 x Outers' connector

Connect to an outer with:
M2, Philips head screw, 12 mm, 16





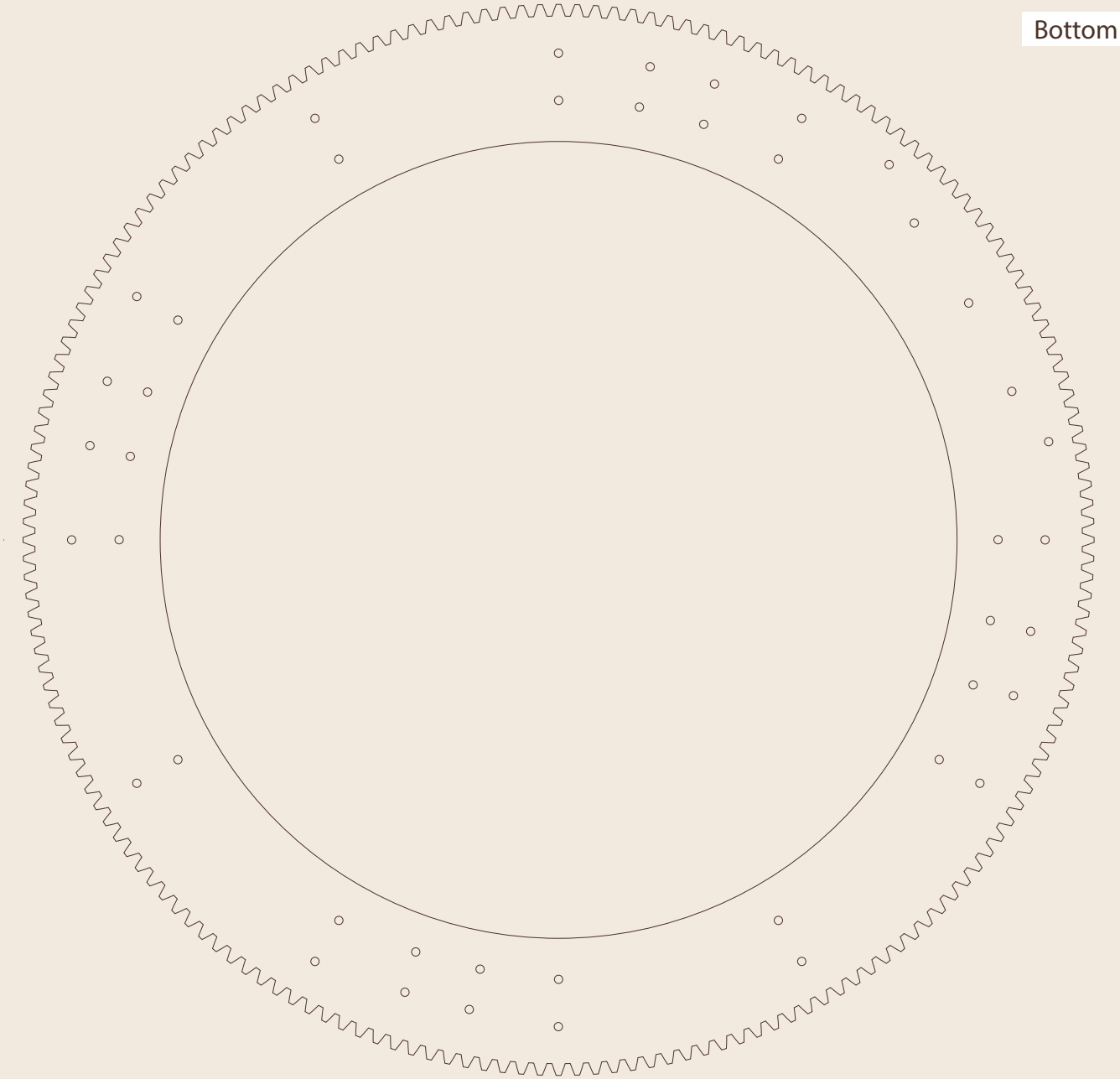


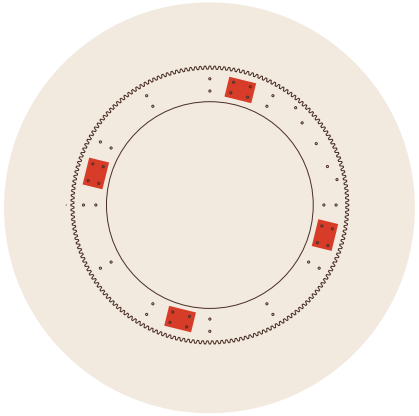


thickness: 1,40mm

60 x Needle

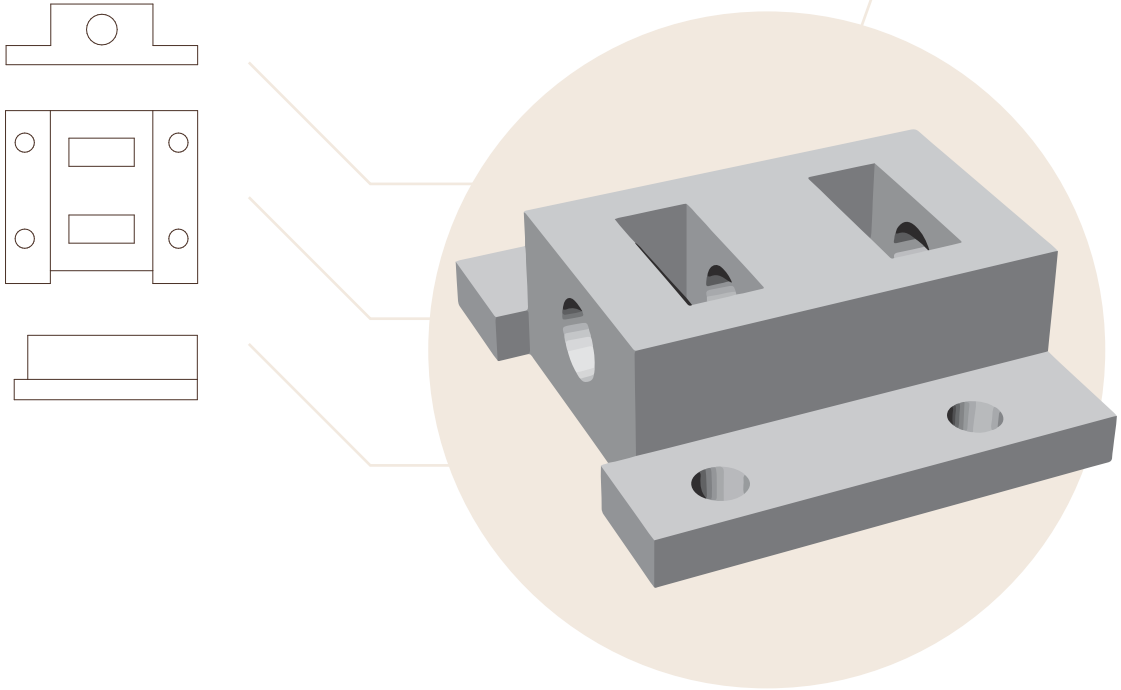
Bottom surface (big gear) + motor gears

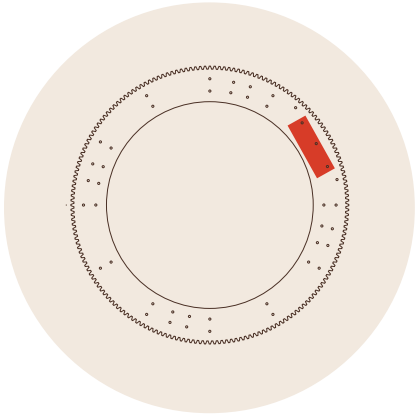




4 x Small bearings' holder

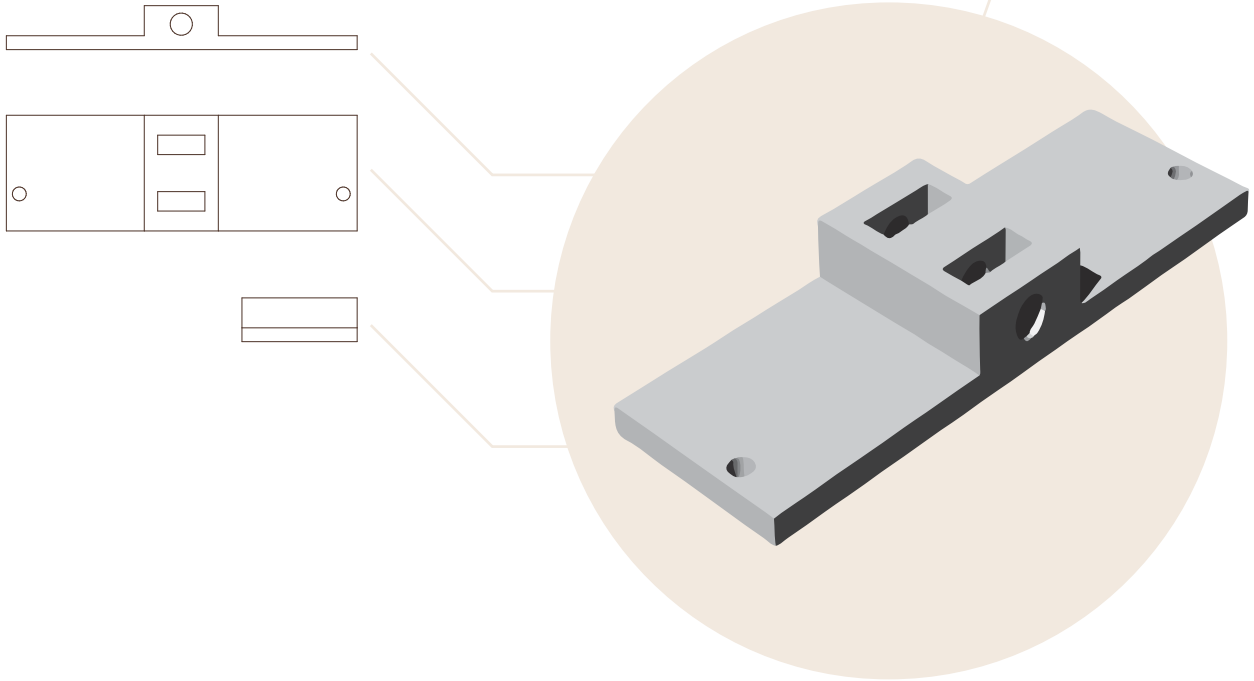
each bearing use:
1 x M5,DIN912 hex screw, 25mm
4 x M3,DIN912 hex screw, 12mm

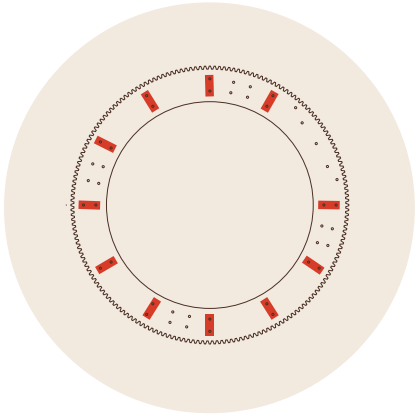




Big bearings' holder

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

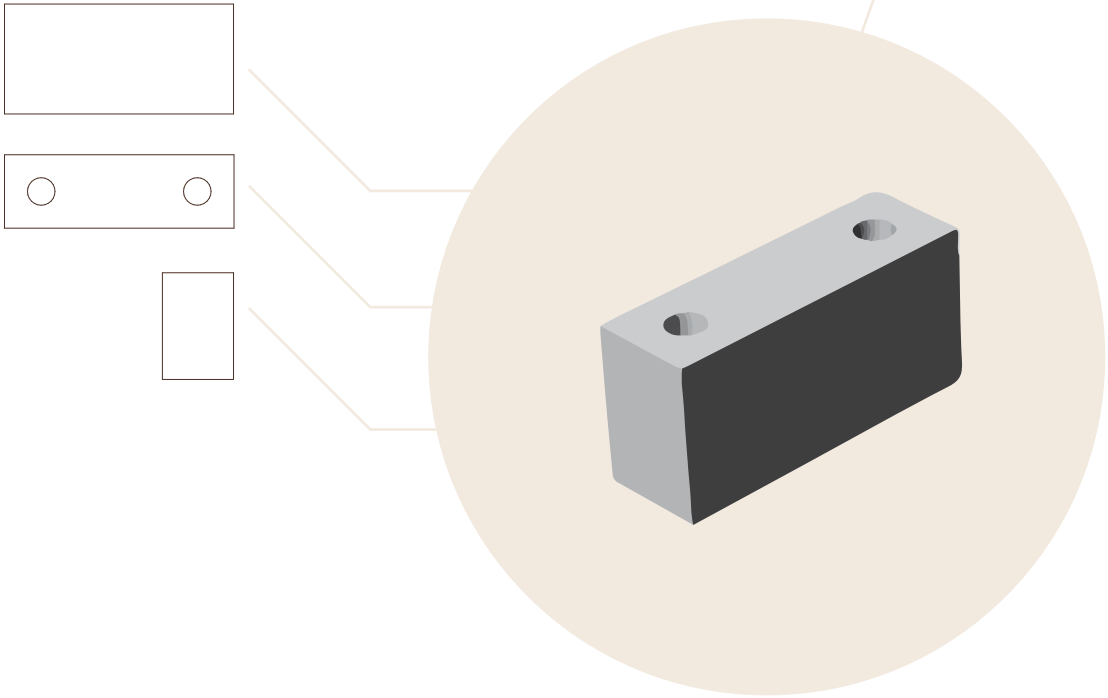




11 x Connector

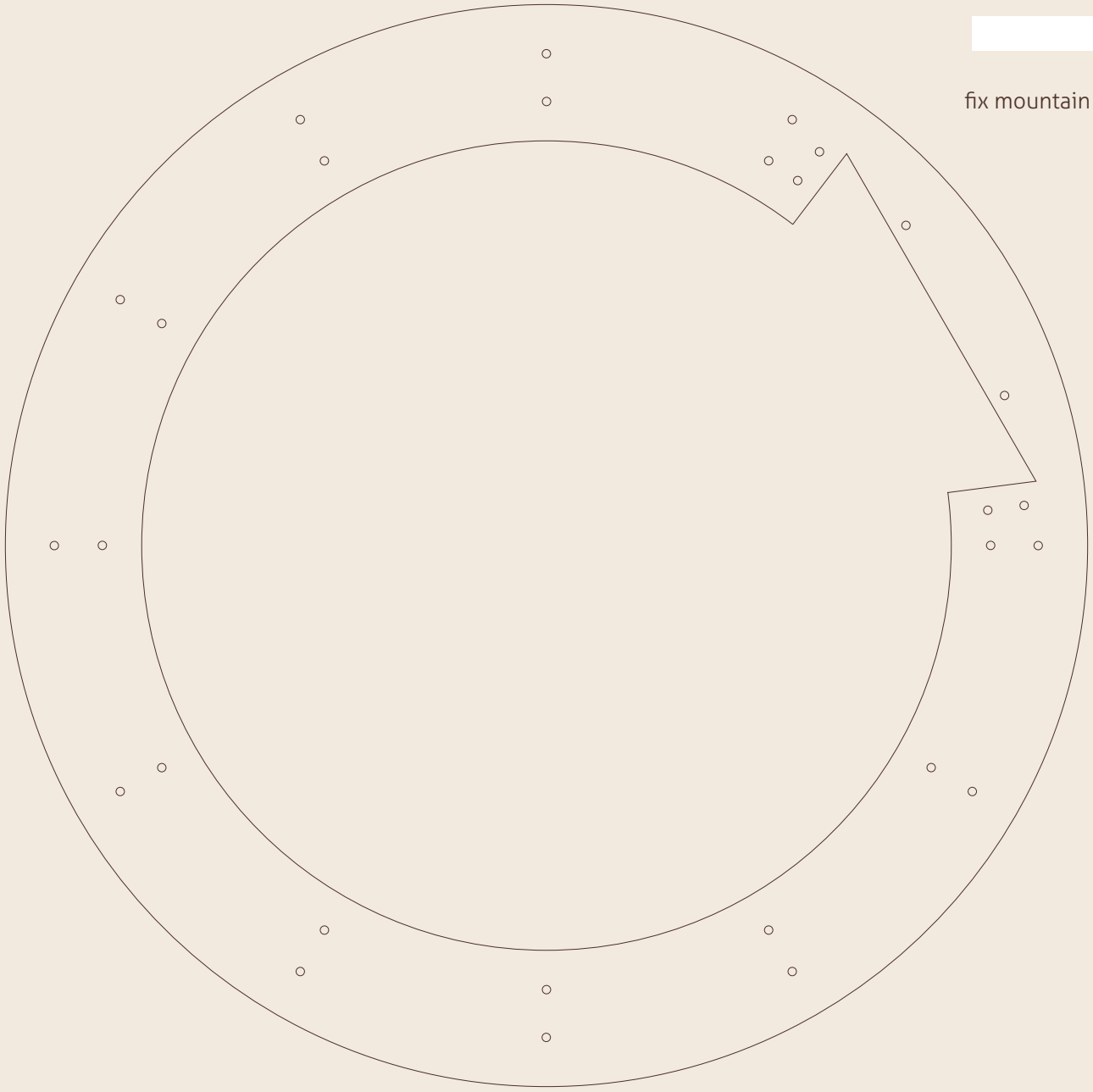
connects upper and bottom plates

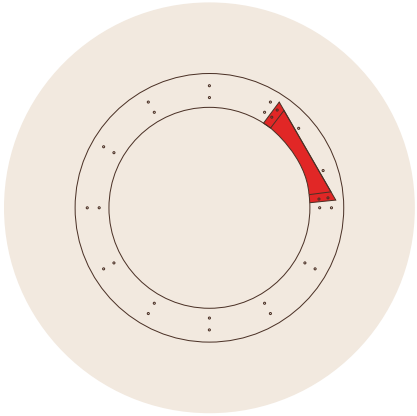
Connect to an upper surface with:
M3, DIN912 hex screw, 30mm, 22

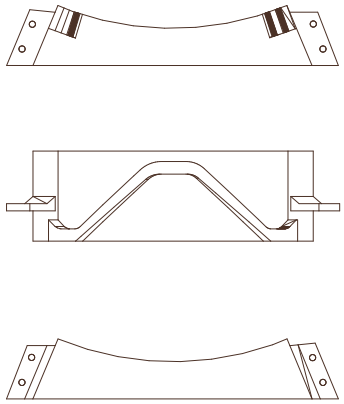


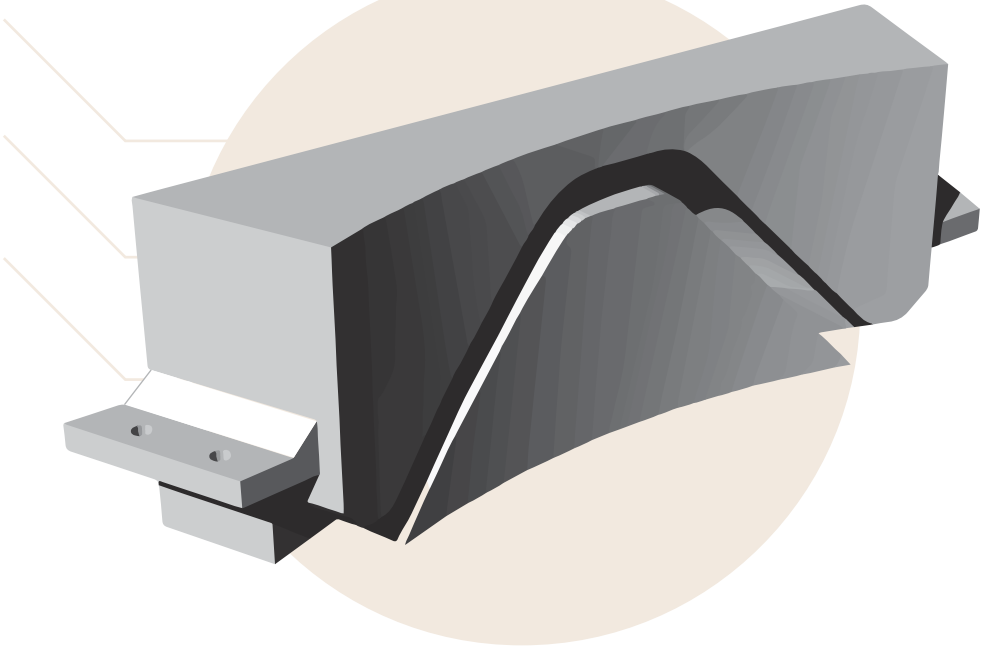
Upper surface

fix mountain and makerbeam parts here





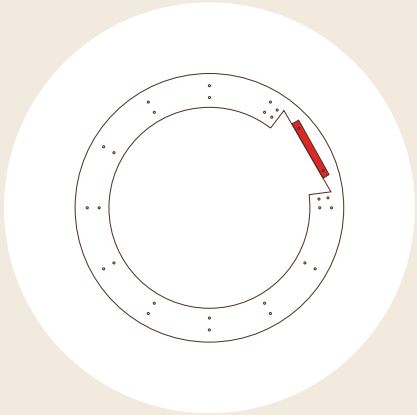


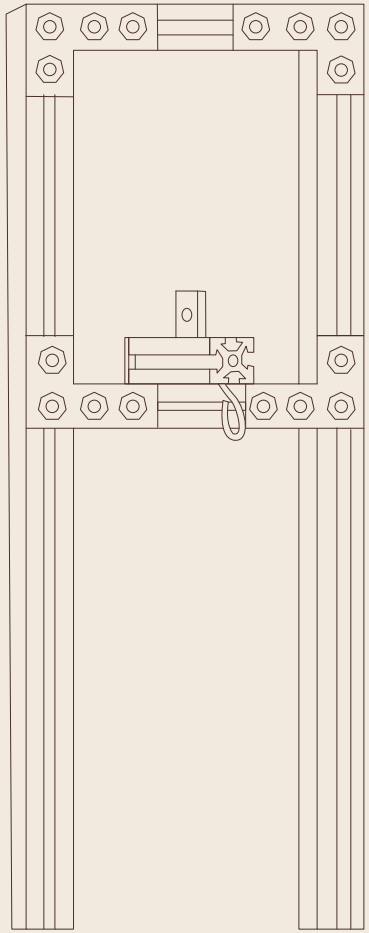


Mountain

Pushes needles up and again down

Connect to an upper surface with:
M3,DIN912 hex screw, 12mm, 4





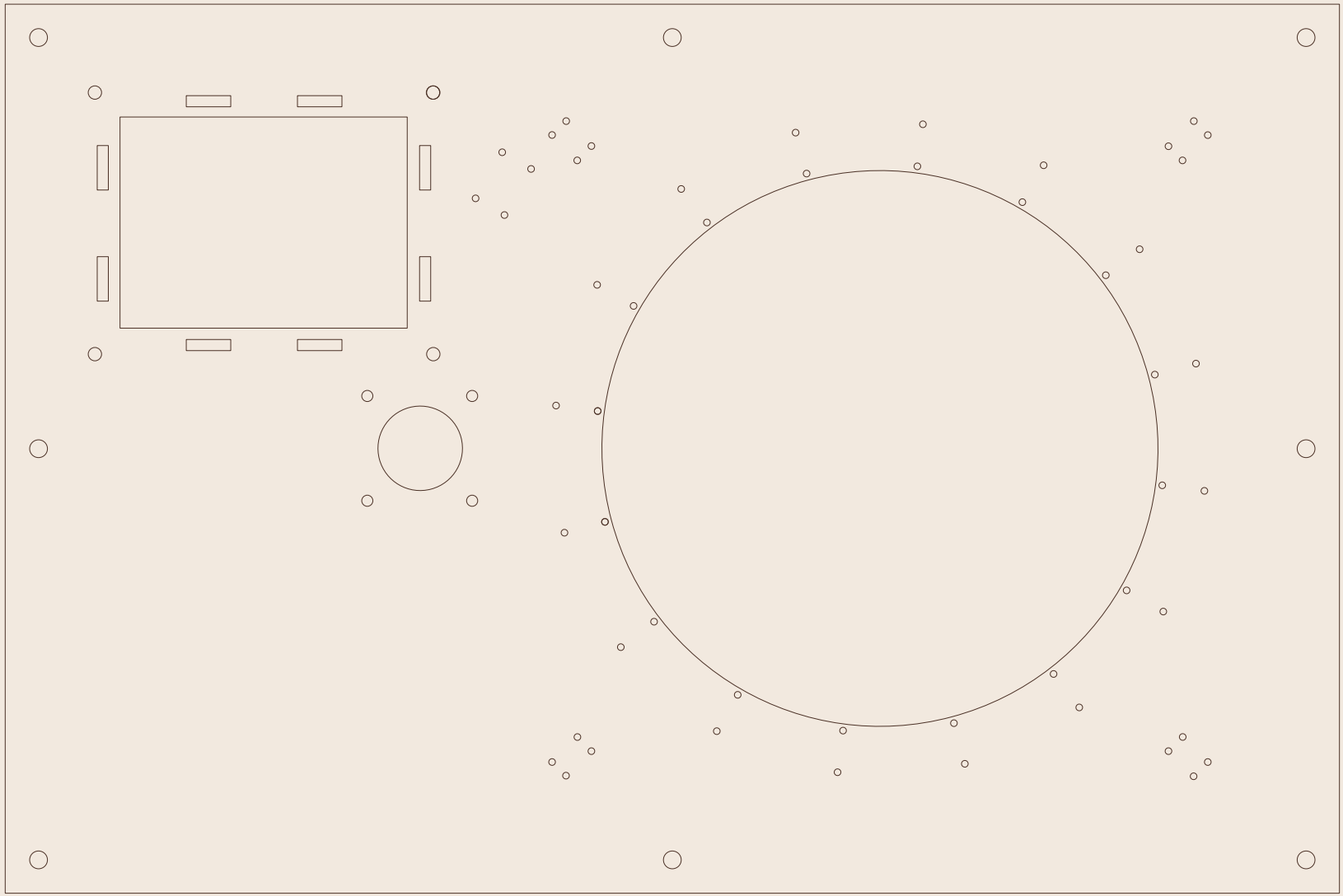
Yarn-feeder

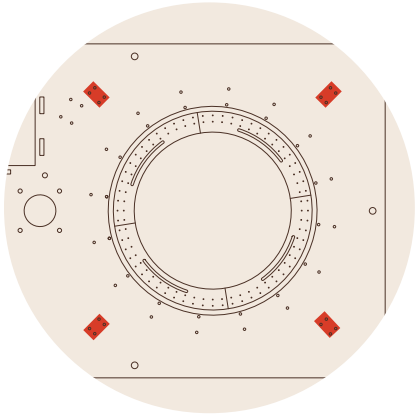
Use 2 x 200mm beam
2 x 60mm beam
1 x 40mm beam
made out of makerbeam

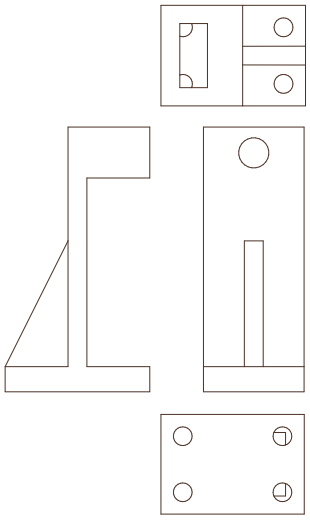
Connect to a plate with:
M3,DIN912 hex screw, 12mm, 3;
Use makerbeam Lshape x 4;
makerbeam screws, 15

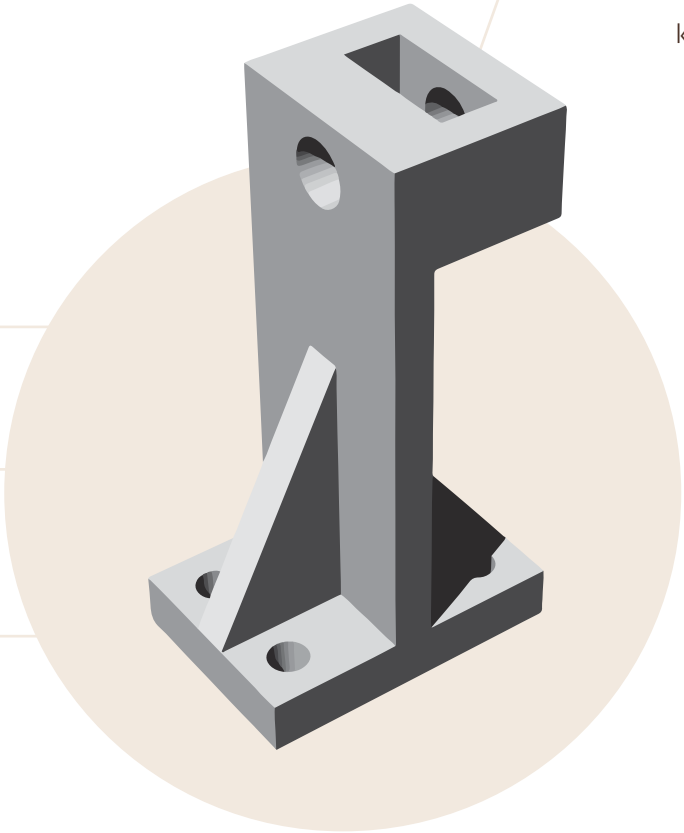
Plate nema23

here will be mounted all the machine parts









4 x Z-shape

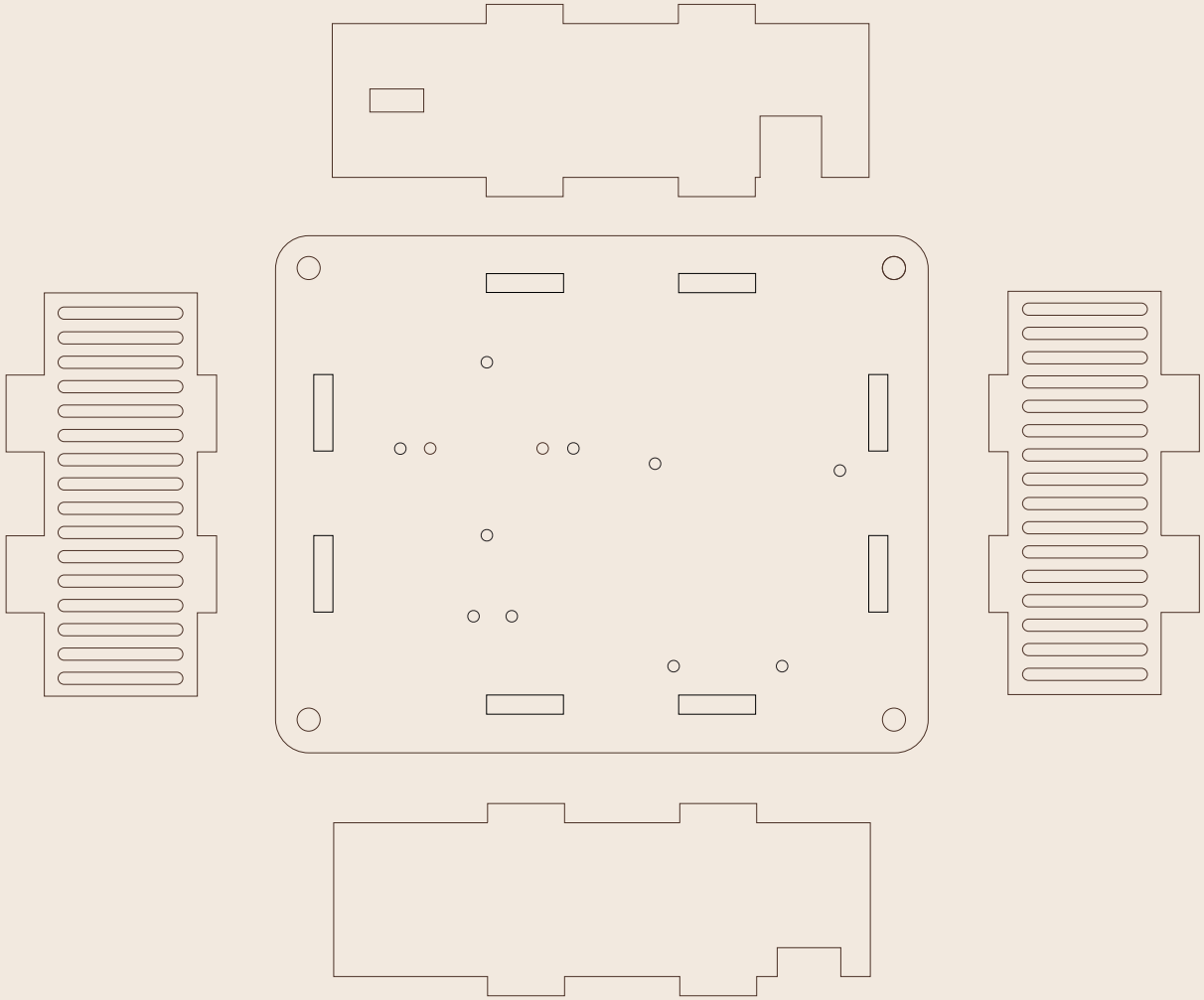
keeps the surfaces down and doesn't allow to move them up

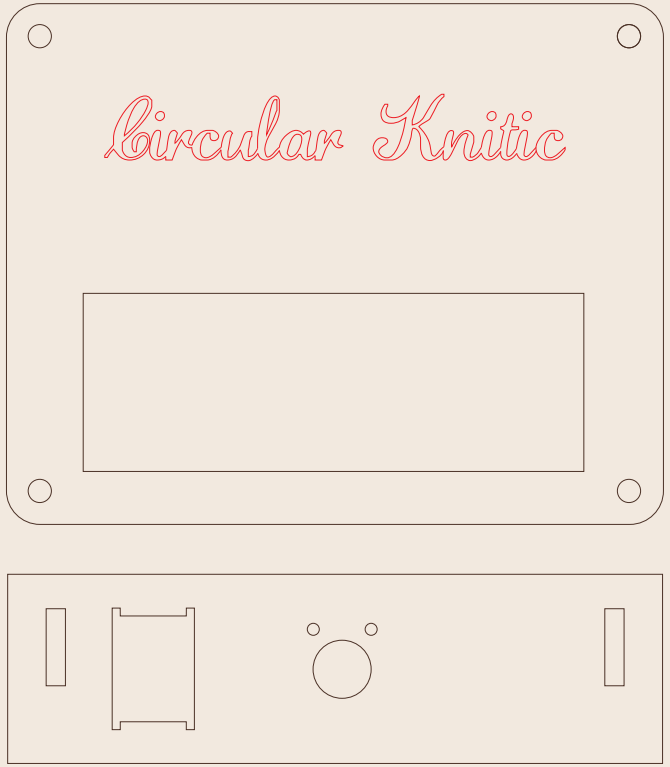
Place a bearing with:
M5,DIN912 hex screw, 16mm, 4.
Connect to a plate with:
M3,DIN912 hex screw, 12mm, 16

Box of electronics

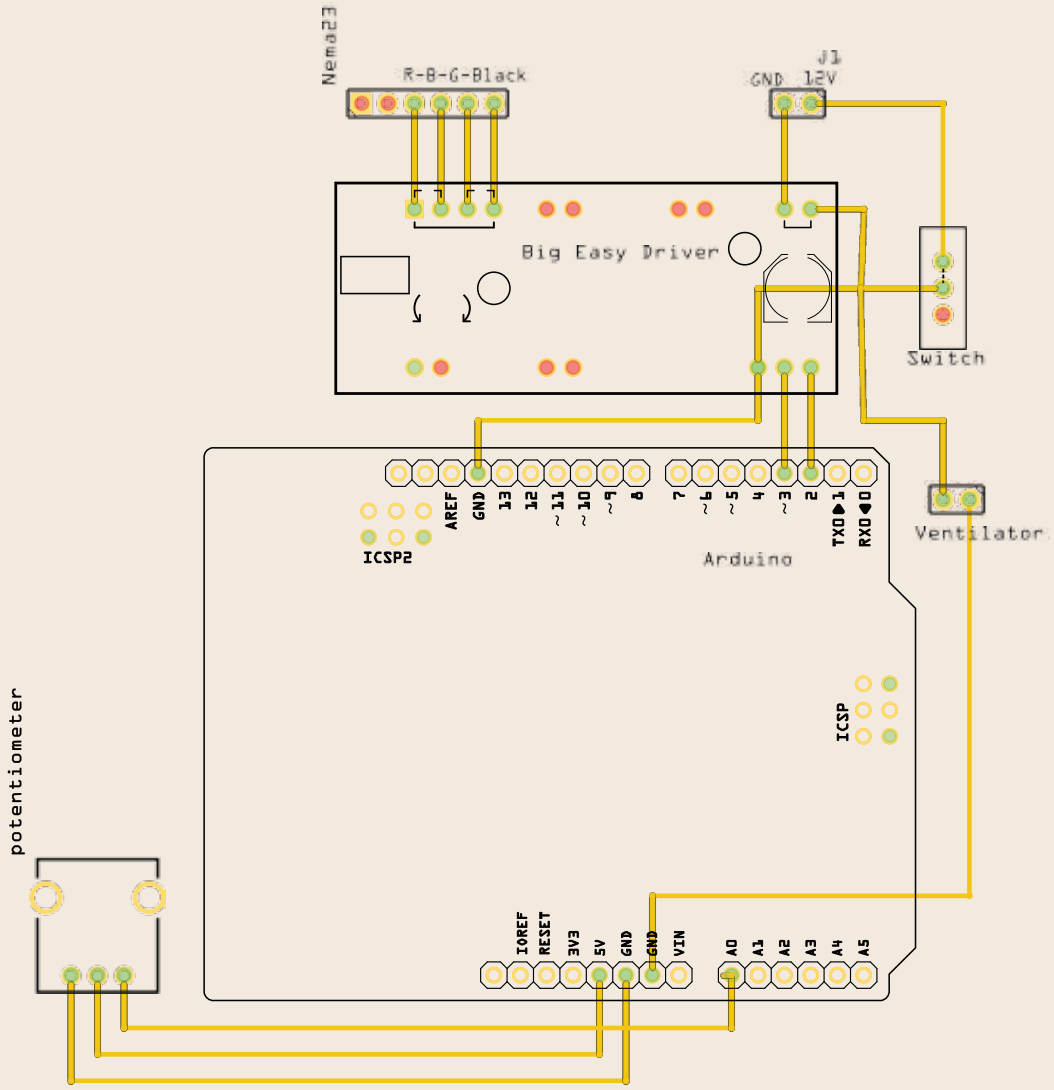
here goes all the cables, basically: stepper motor driver, ventilator, switch, potentiometer, arduino, etc.

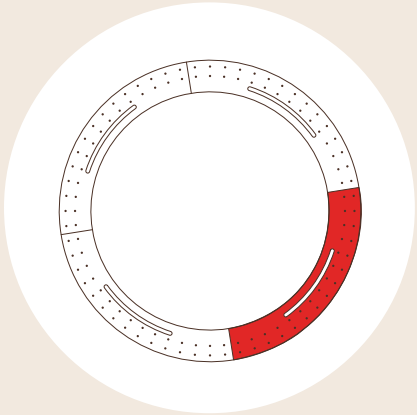
Put together and connect to a plate with:
M6, hex screw, 70mm, 4

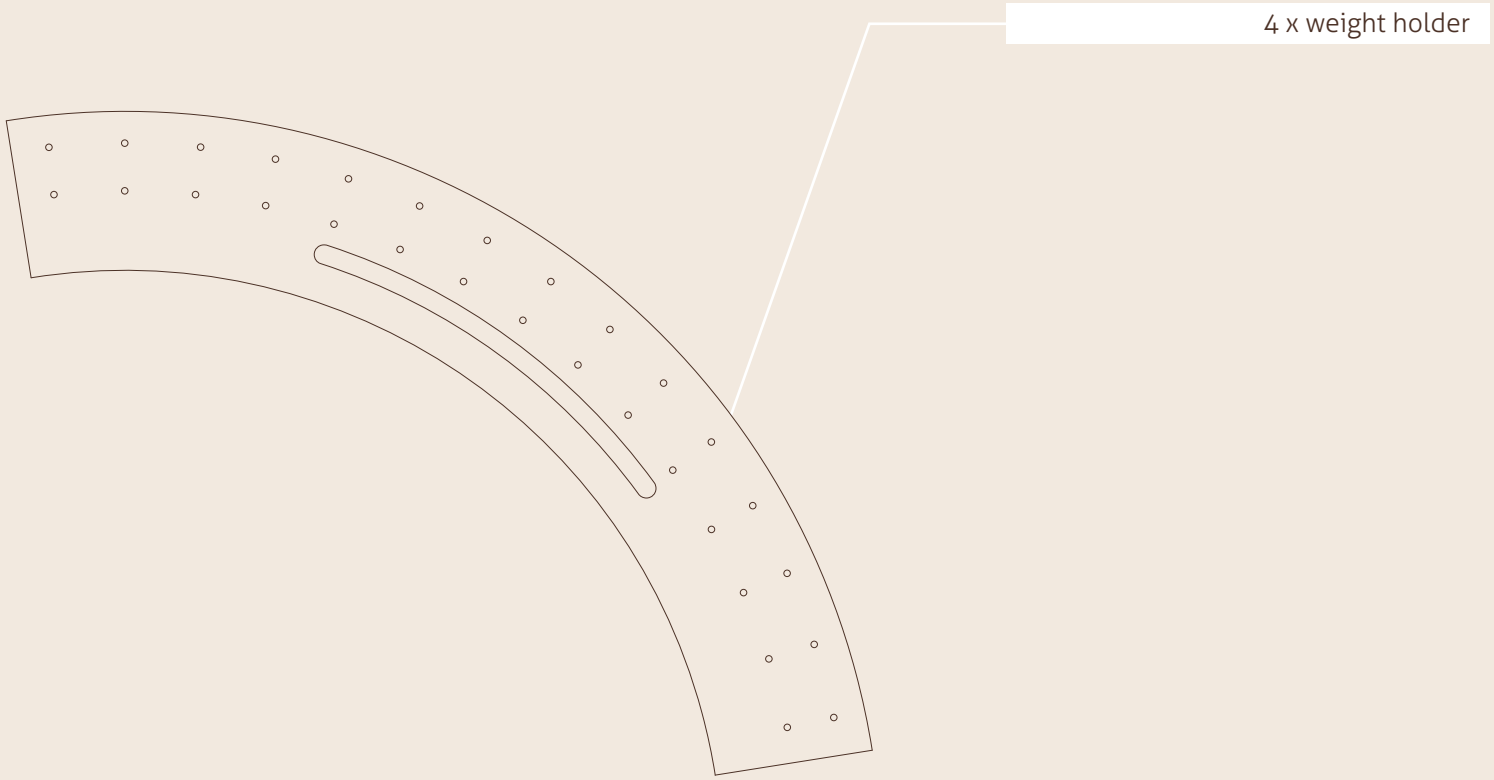


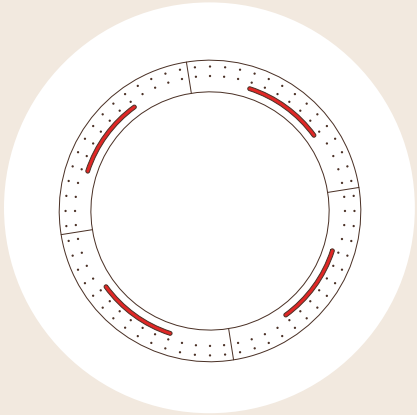


Electronic schema



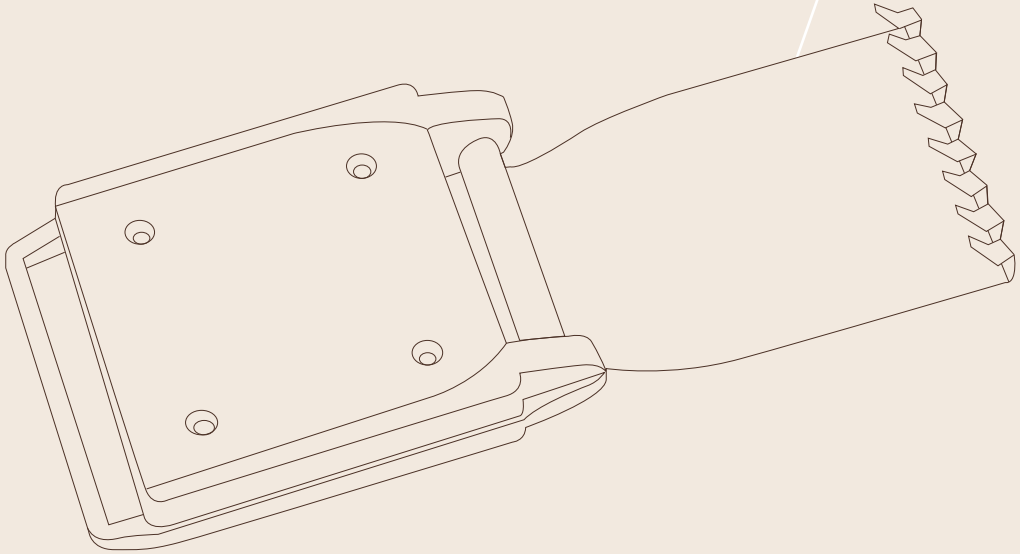


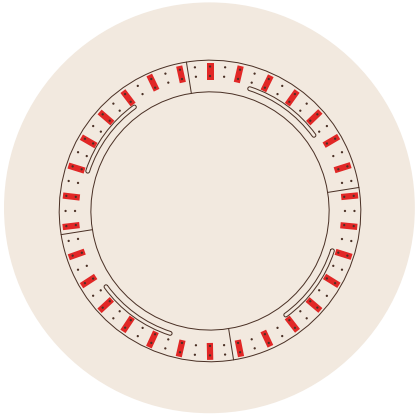

4 x weight holder

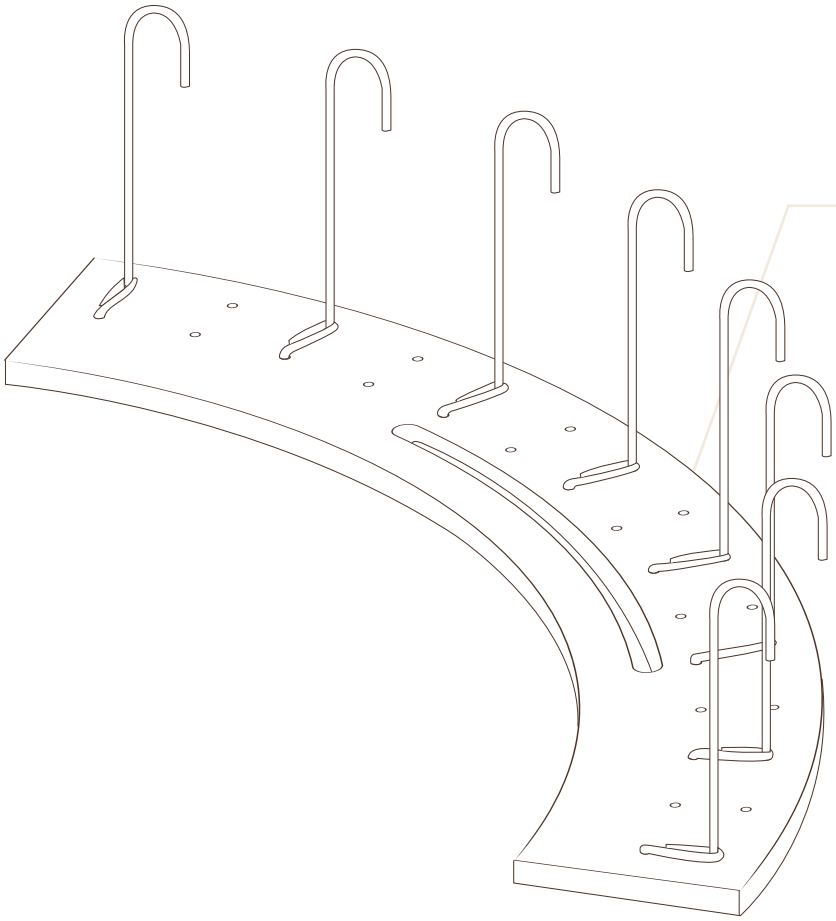


4 x Knitting machine claw weight

weight: 113g.

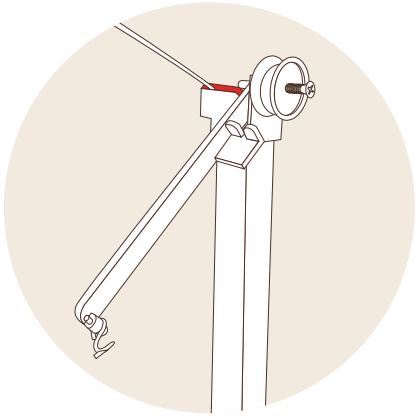






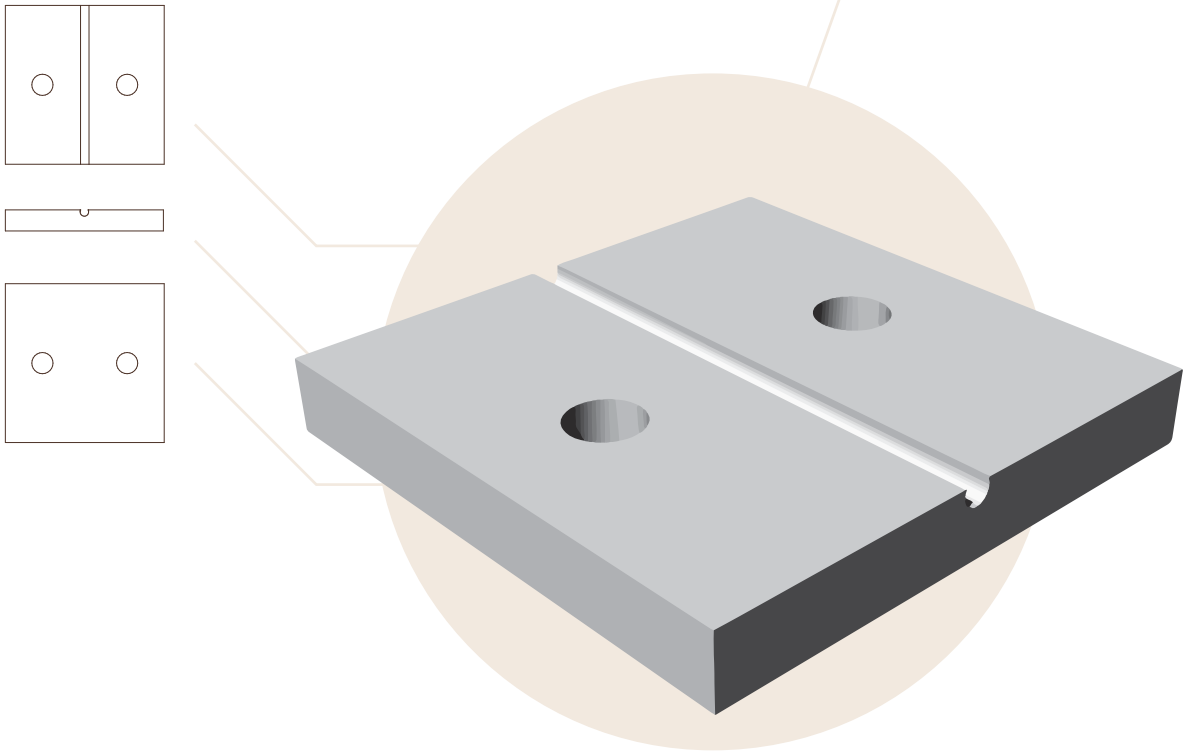
30 x Paper clip

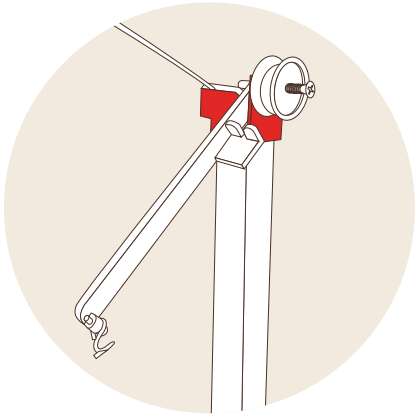
long: 50mm.

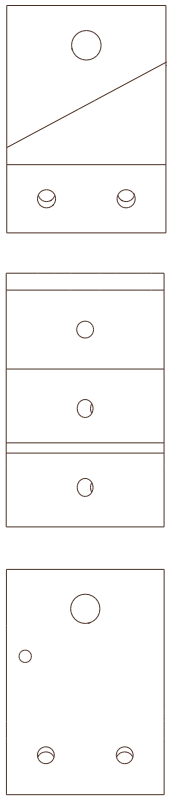


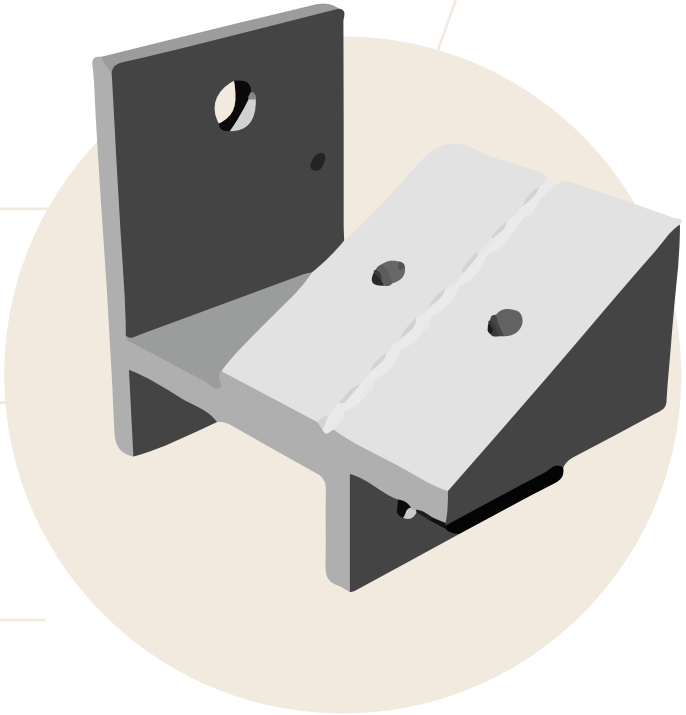
Stick holder

this item fixes a stick, which brings yarn
to the machine, into the table



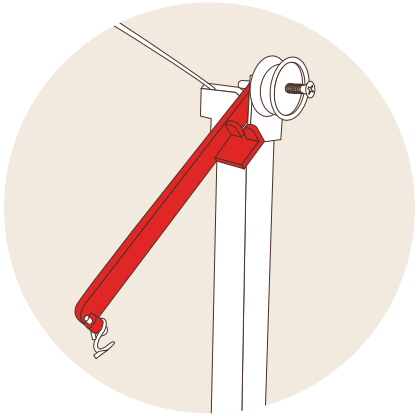






1 x Connector

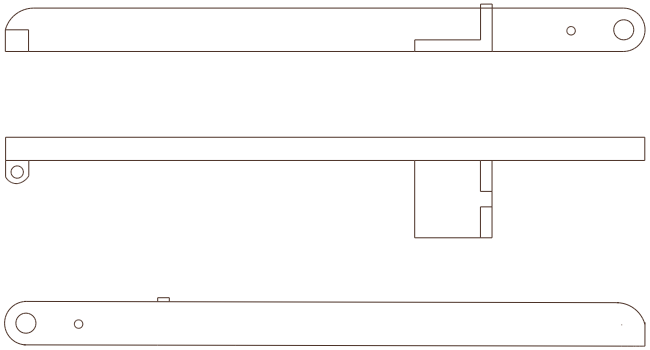
mechnism for yarn tensioner.
Connects to the structu

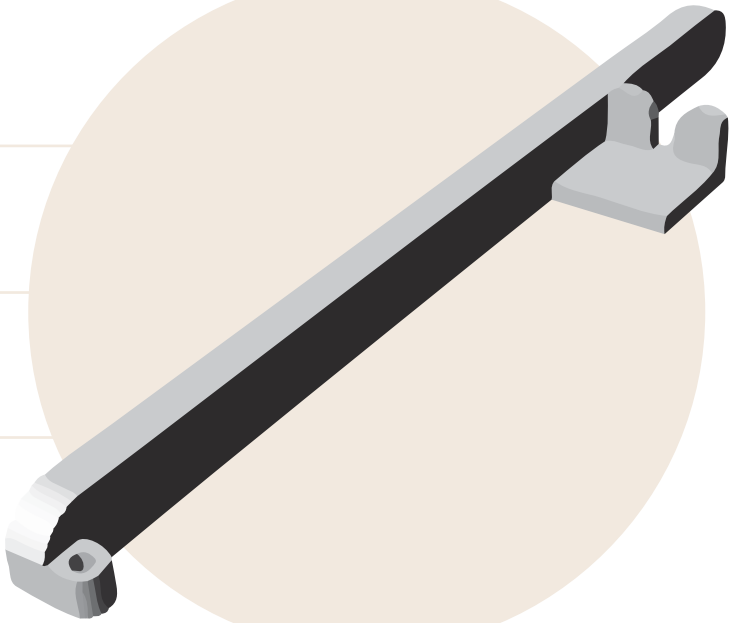


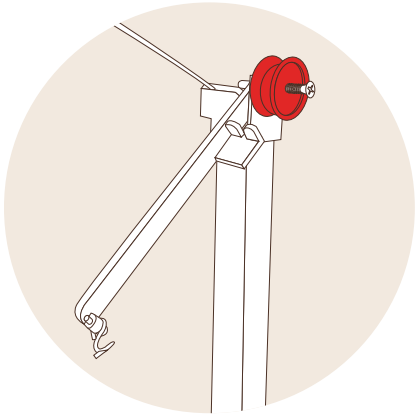
11 x Connector

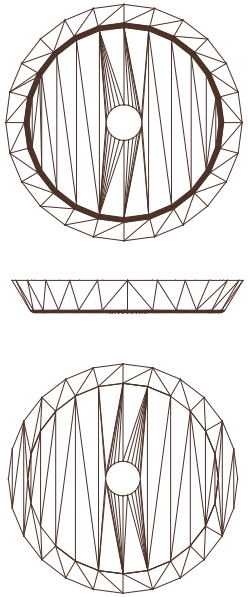
connects upper and bottom plates

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





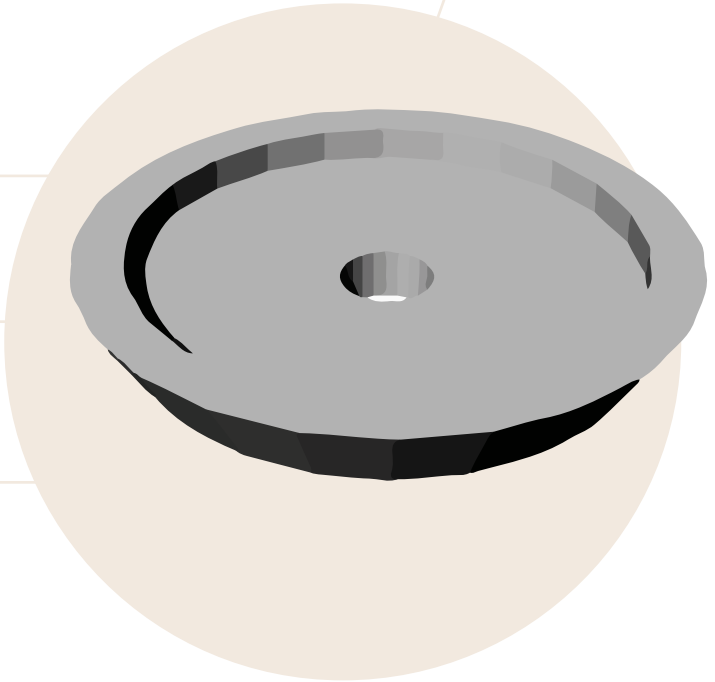


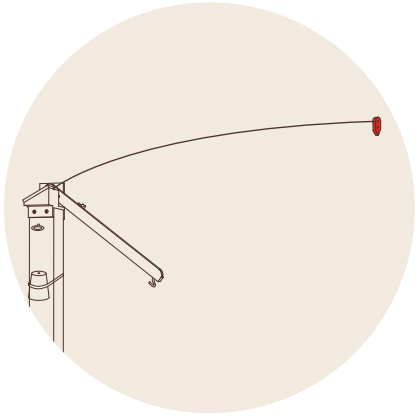


2 x Spring

connects upper and bottom plates

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

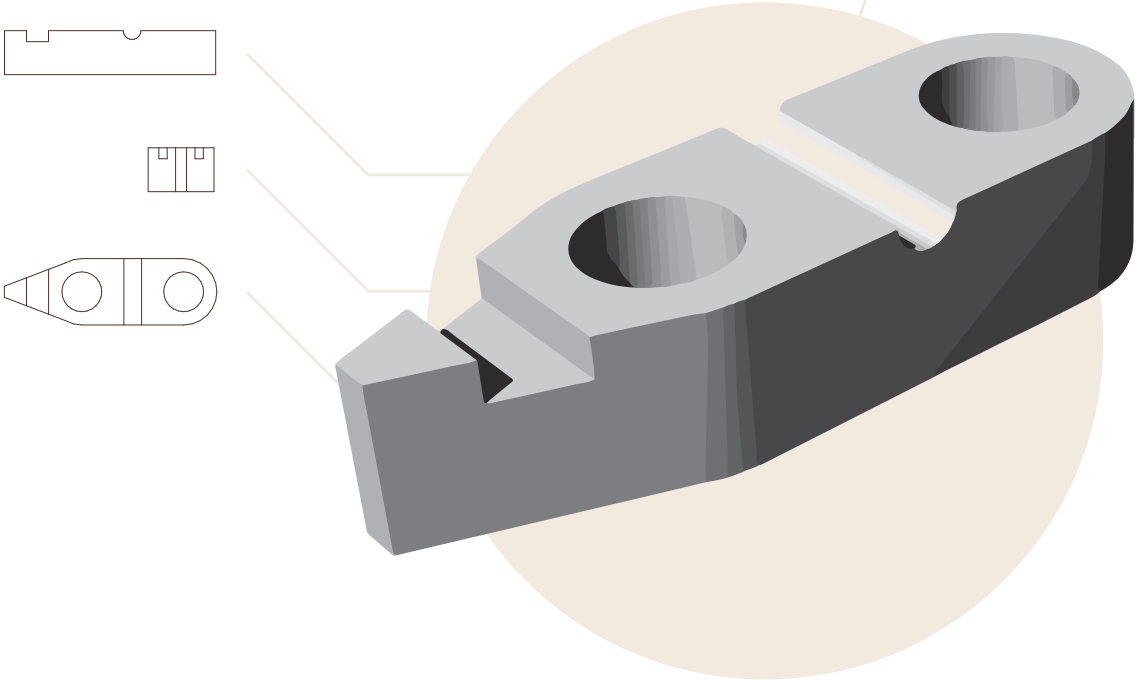


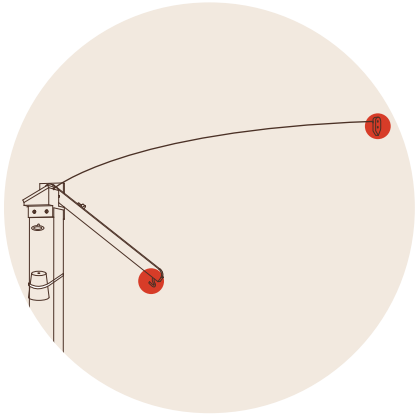


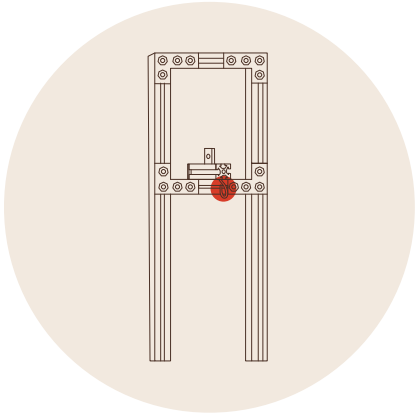
2 x Yarn holder2

Attach a metal piece for passing the yarn

Connect with M3, 8mm, 2

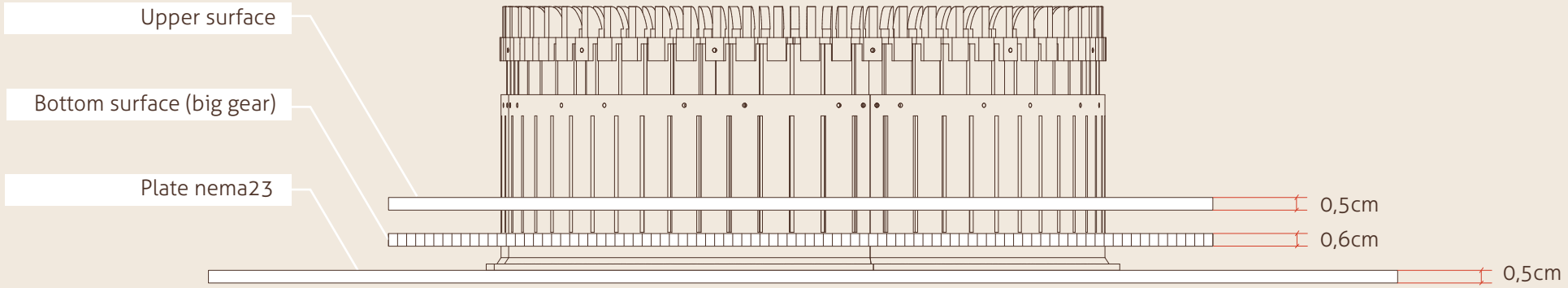




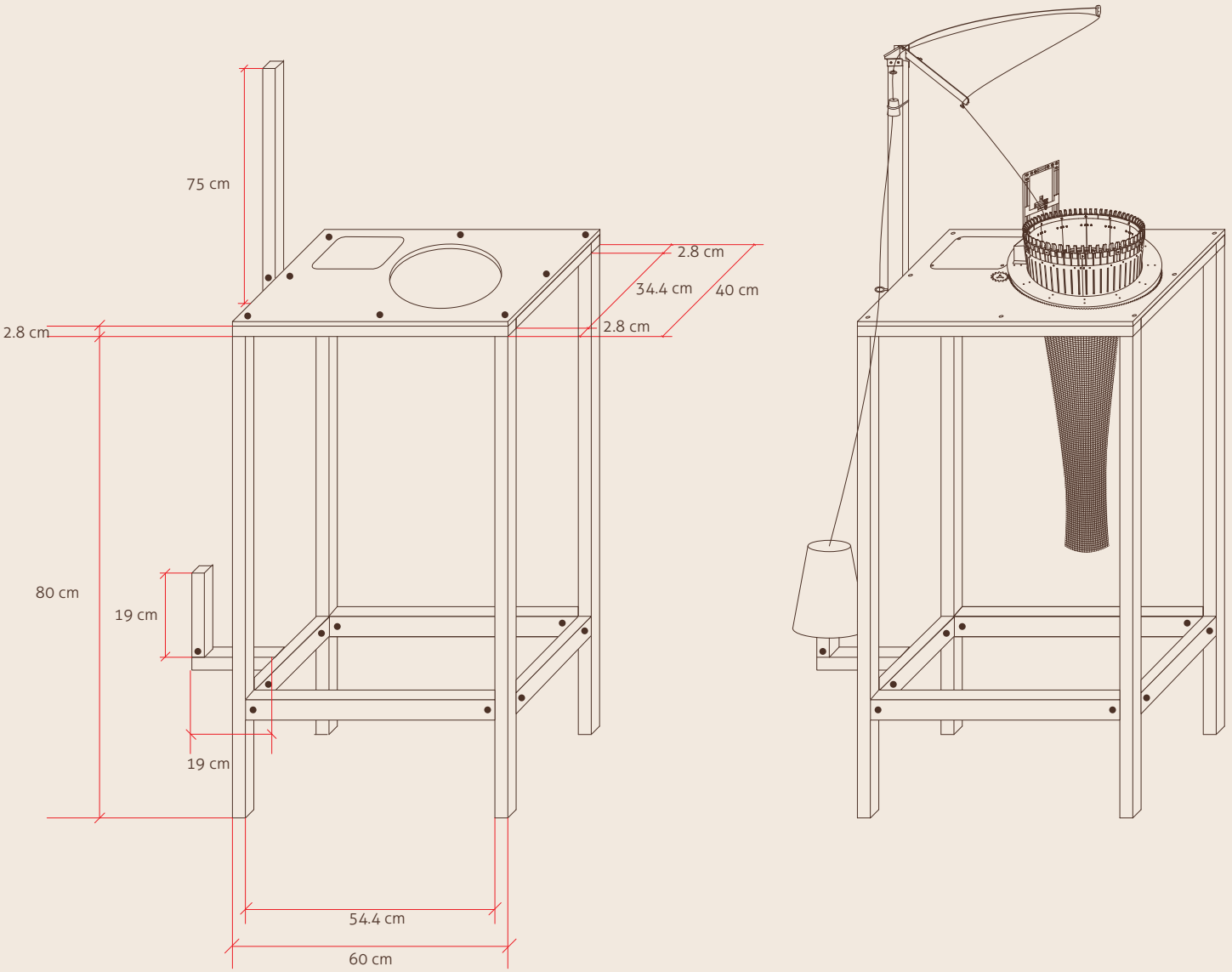


Metallic eight

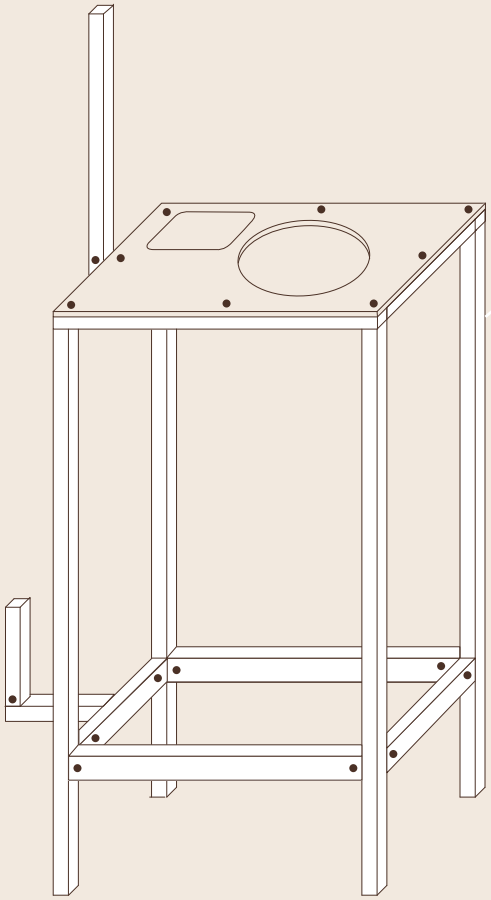
thickness: plate and surfaces

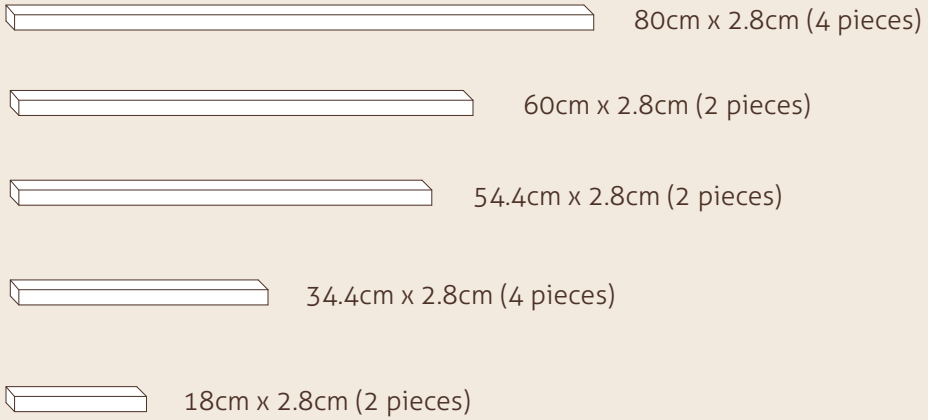


Circular Knitic table



Wood parts to create the machine frame





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

DOERS

Curated by

David Cuartielles

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More info:

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