Ribber

ASHCROFT MAKERS 3D PRINTED CIRCULAR KNITTING MACHINES

PARTS DESCRIPTION

Beam, Tappet Plate, Dial Assembly, Ribber Brackets

FITTING THE RIBBER BRACKETS TO YOUR CSM

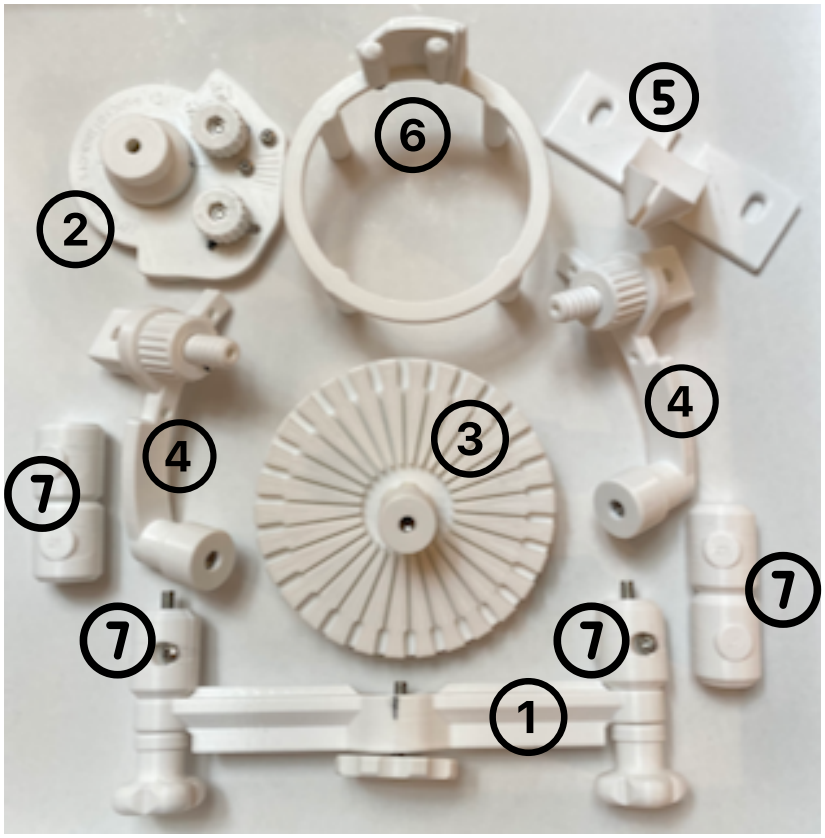
How to Retro Fit the Brackets to your CSM

SETTING THE RIBBER BEAM HEIGHT

How to adjust the height of the beam using the spacers.

ISSUE 1 | MARCH 2022

parts description



Part 1 - The Beam

The beam supports the dial assembly above the centre of the CSM with a bolt at each end, retained with spacers which set the height of the dial above the CSM.

The central hole in the beam supports the tappet plate assembly with a threaded screw. This screw passes through the tappet plate spacer and into the dial assembly bearing spacer.

The matched pair of spacers can be replaced with other lengths of spacer if the beam is not in the correct position to knit properly. The height of the spacer is shown on the side, always use a matching pair.

parts description

Part 2 - The Tappet plate Assembly

This comprises the tappet plate, gate cam (for ON/OFF) and the tension cam. Each cam is retained with a thumb knob and pointer which shows whether the gate is open or closed and the approximate tension settings.

Part 3 - The Dial Assembly

The dial assembly has the dial, with an appropriate number of slots from 24 to 36. Each dial is set in the Ashcroft Makers workshop with the bearing assembly which supports the dial whilst knitting.

The top stepped spacer sets the bearing and dial clearance and the top of the spacer assembly has a captive nut which goes into the top knob and screw.

Part 4 - Ribber Brackets

There are left and right hand ribber brackets which replace the existing cam lift mechanism knob and clip.

Part 5 - Adjustable Yarn Feeder

Part 6 - Cylinder Stopper

Part 7 - Spacers

Fitting the Ribber Brackets to your CSM

Machines ordered WITH A RIBBER will already have the Ribber Brackets fitted to the CSM.

The ribber brackets will need to be fitted to your CSM if:

- your ribber has been received as part of your original CSM/Ribber bundle *prior to* March 2022.

OR

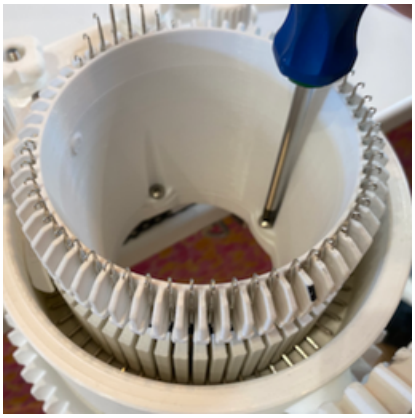
- your ribber has been ordered separately from your CSM order.

<u>To fit the brackets:</u>

The brackets are supplied as a pair, left hand and right hand, with replacement cam lift screws.

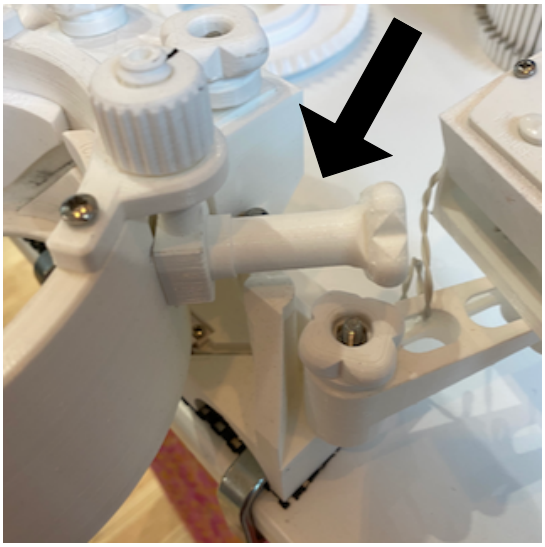
1 - Remove the cylinder:

First, remove half the needles, then using the screwdriver supplied with your CSM, unscrew the cylinder and remove it from the CSM. Put the (thicker) cylinder screws aside.

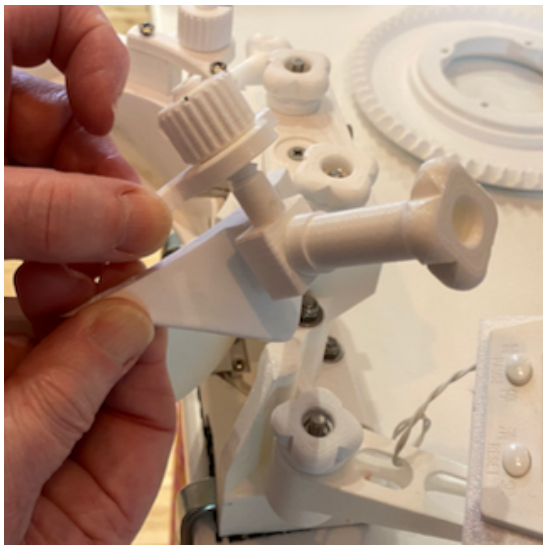


Fitting the Ribber Brackets to your CSM

2- Loosen the cam lock knobs on the rear of the CSM.



3 - Using the screwdriver, remove the two screws located on either side of the cam lift knob. (set aside the thinner screws)



4 - Remove the cams. (this is also an opportunity to clear out any dust from your machine)

Fitting the Ribber Brackets to your CSM

5 - Remove the clips from the cams by unscrewing the cam lift knobs in a clockwise direction.

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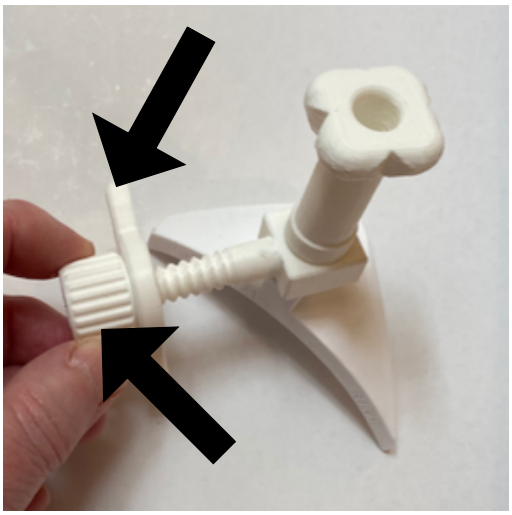


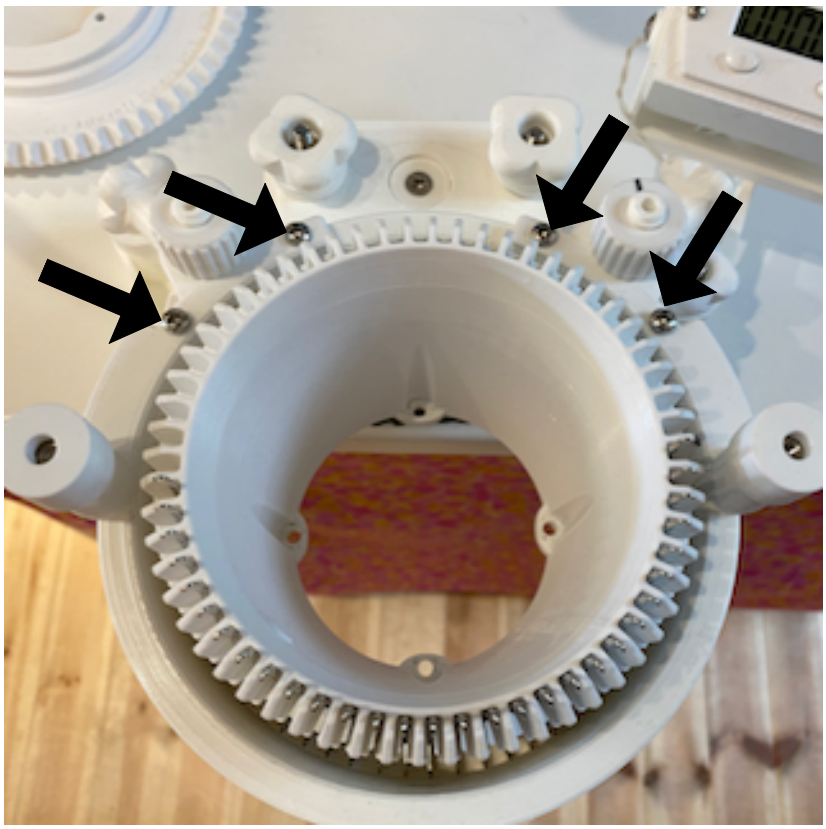
6 - Identify the appropriate ribber bracket (left hand or right hand)

and replace the cam lift knobs with the brackets, to the cams. (screwing in an anti-clockwise direction)

Fitting the Ribber Brackets to your CSM

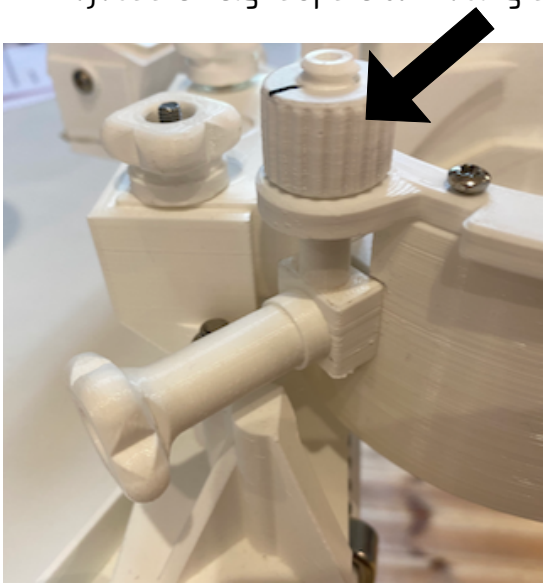
7 - Place the cams with the ribber brackets back into the casing.

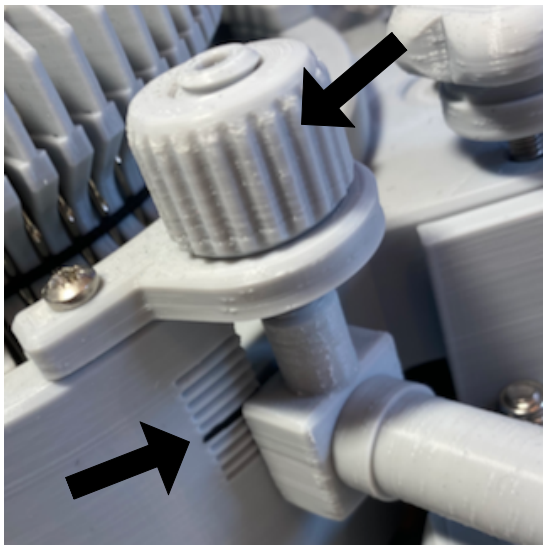
8 - Replace the thinner screws, making sure that they are sufficiently tight so that the bracket doesn't move.



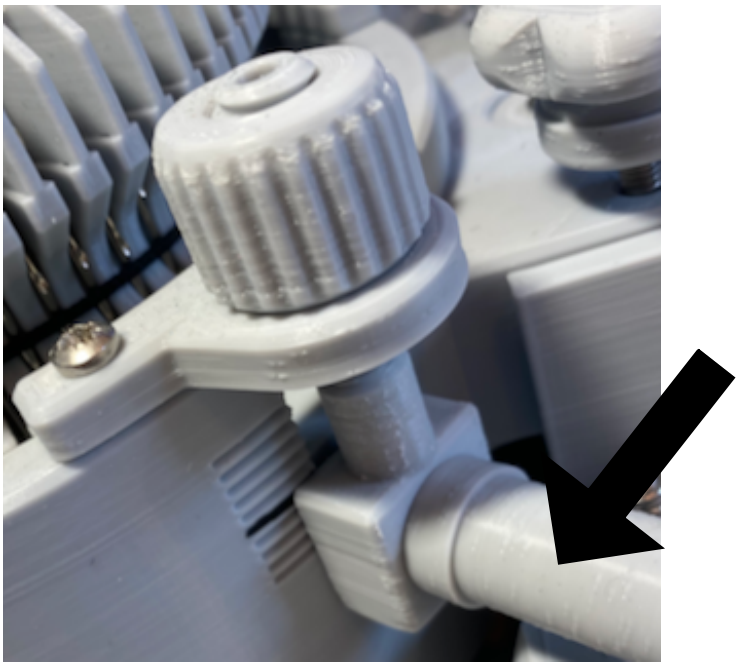
Fitting the Ribber Brackets to your CSM

9 - Adjust the height of the cam using the cam lift knob.



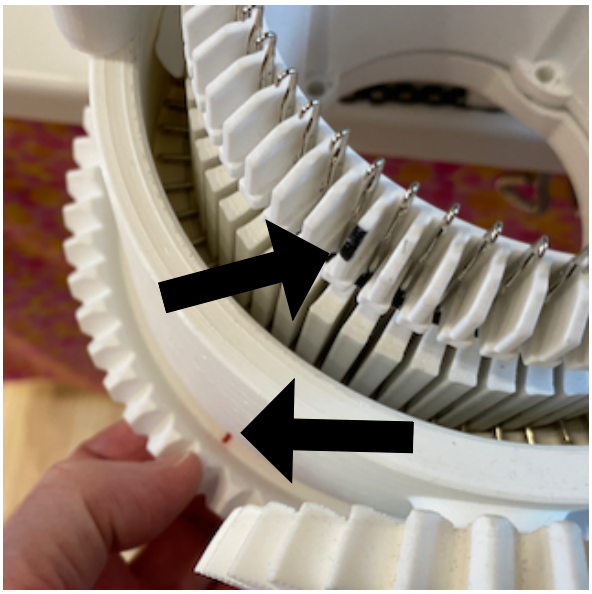


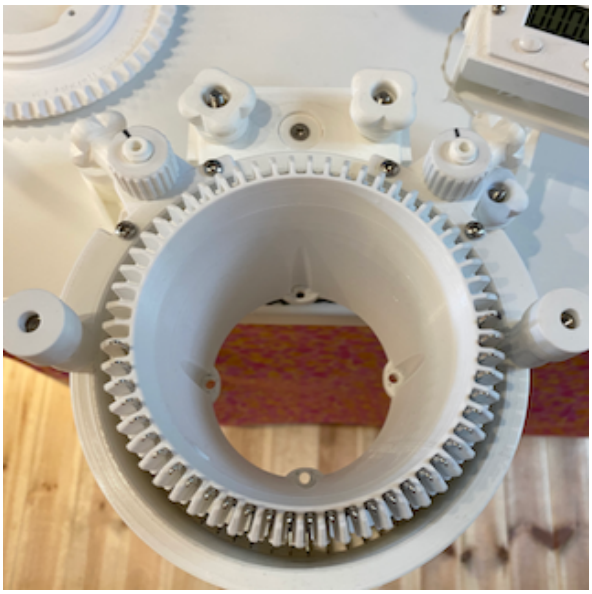
then tighten the cam lock knobs.



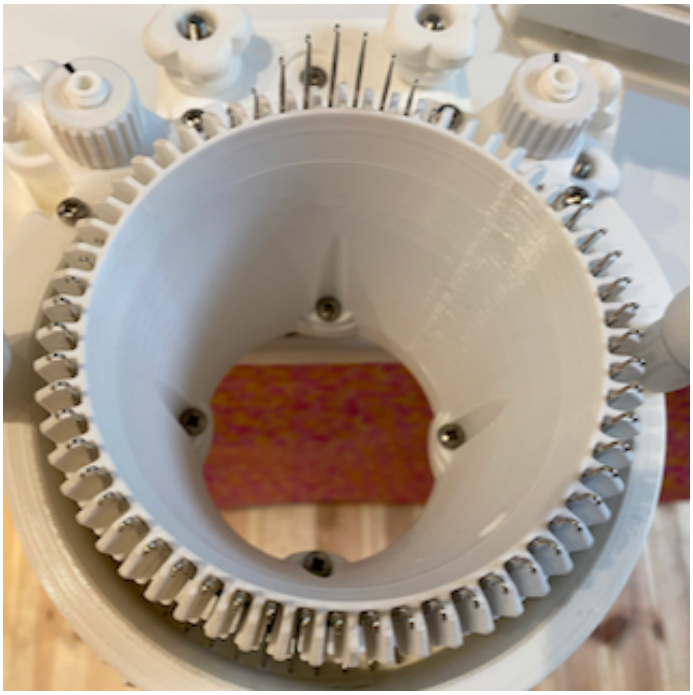
Fitting the Ribber Brackets to your CSM

10 - Replace the cylinder and tighten the screws, aligning the mark on the cylinder with the mark on the large gear. (this sets the row counter)



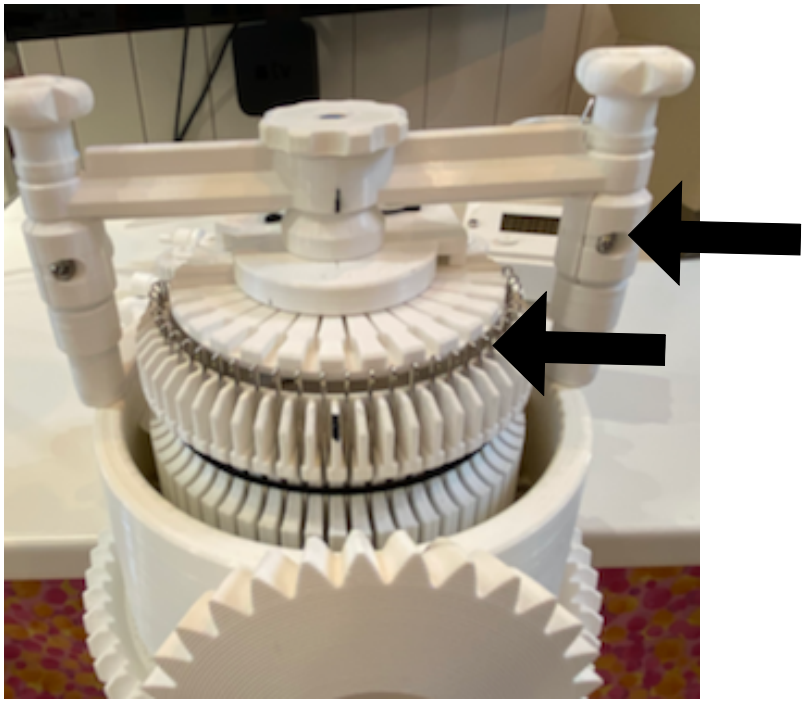


11- Replace the cylinder needles.



Setting the Ribber Beam Height

You can change the spacing between the cylinder and the ribber to allow for a wider/narrower opening to accommodate all types of yarn. We have supplied you with 26, 28 and 29mm high spacers with the ribber.



If the beam dial is too close to the cylinder, the knit will not drop down through the cylinder and the machine will jam.

To change the height of the beam:

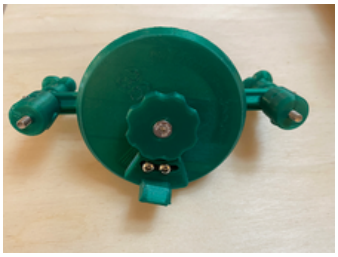
- remove the beam from the CSM
- loosen the screws on the side of the spacers
- replace the spacers with a pair which will increase or decrease the height

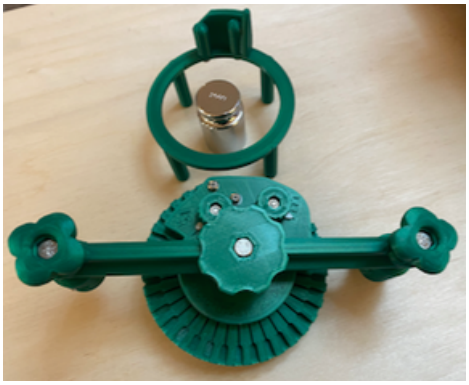
How it works

The cylinder stopper (inside the cylinder) pushes the ribber dial around when the handle is rotated.
The ribber needles are controlled by the ribber dial and tappet plate.

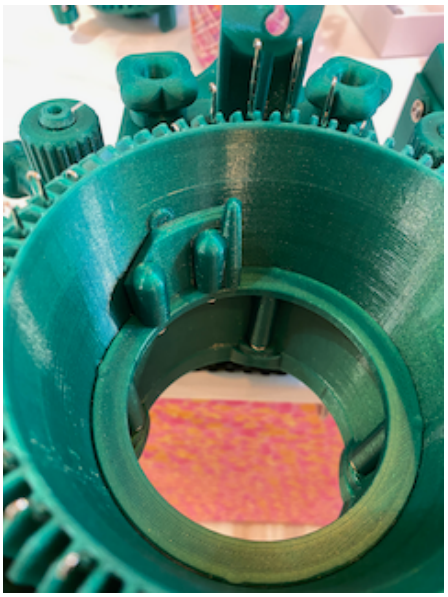
Our innovative ribber can be set at full or half pitch as the dial has an adjustable fin, which allows you to knit a wider variety of rib combinations, with a tool free ribber fitting and dial change.

You can also change the spacing between the cylinder and the ribber to allow for a wider opening for thicker yarns.



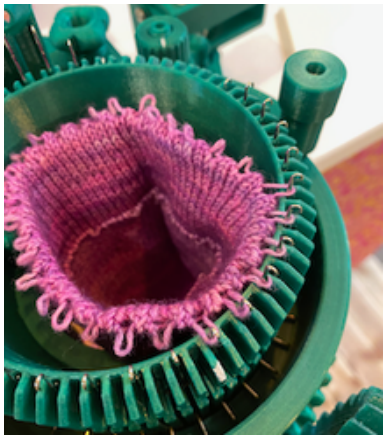


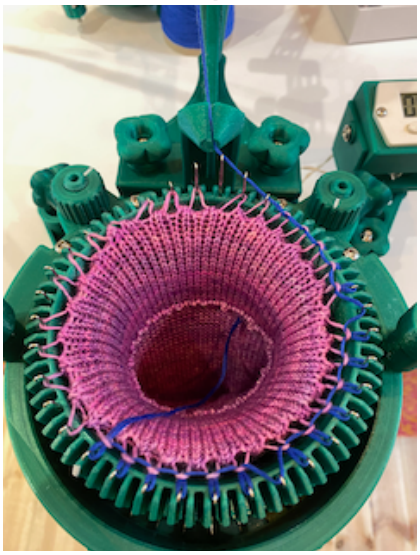
Place the cylinder stopper inside the cylinder, with the stopper directly opposite the main mark on the cylinder.
This can be removed if you are not using the ribber.

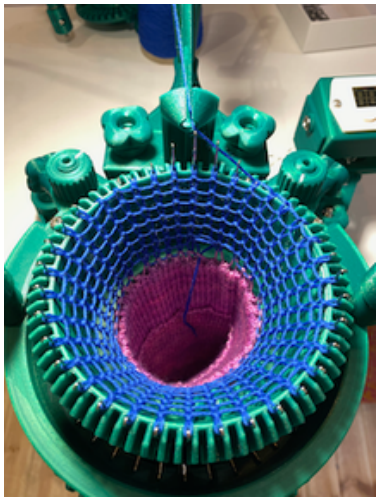


Selvedge Edge Cast On

For a 1 X 1 Rib, remove every other needle from the cylinder and cast on using waste yarn starting at the 6 o' clock position with the main mark also at the 6 o'clock position, attaching the buckle and large weight.

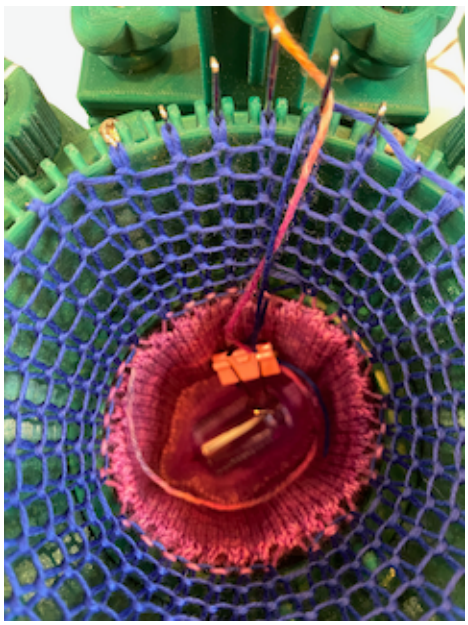


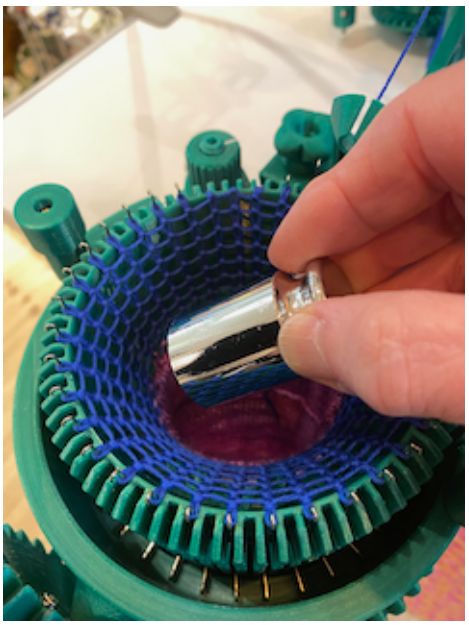




With the main cylinder mark at 1 o'clock, change to project yarn and attach a small clip to hold the yarn ends.

Place the 200g weight inside the knit.

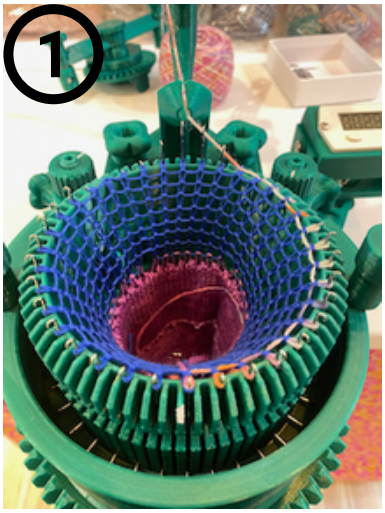


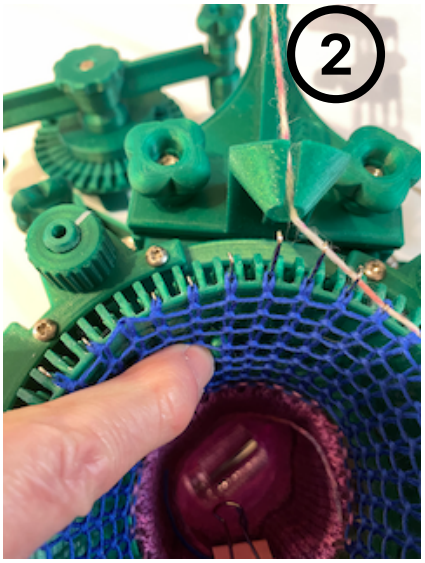


Selvedge Edge Cast On

1 - With the project yarn, knit 1/2 row, stopping with the main mark at the 6 o'clock position.

2 - The cylinder stopper should now be at the 12 o'clock position.



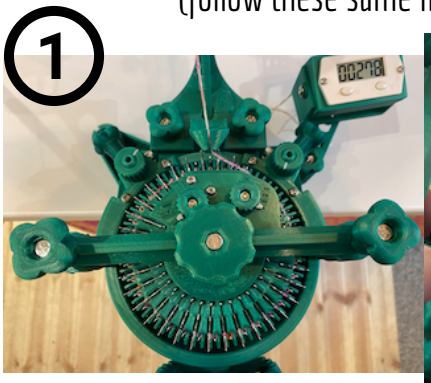


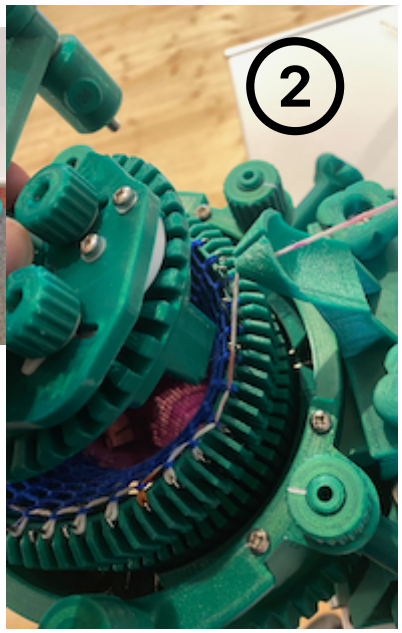
1- Place the ribber frame onto the CSM bracket

2 - with the dial fin to the right hand side of the cylinder stopper (as you are looking down).

3 - Tighten the screws at each side of the casing.

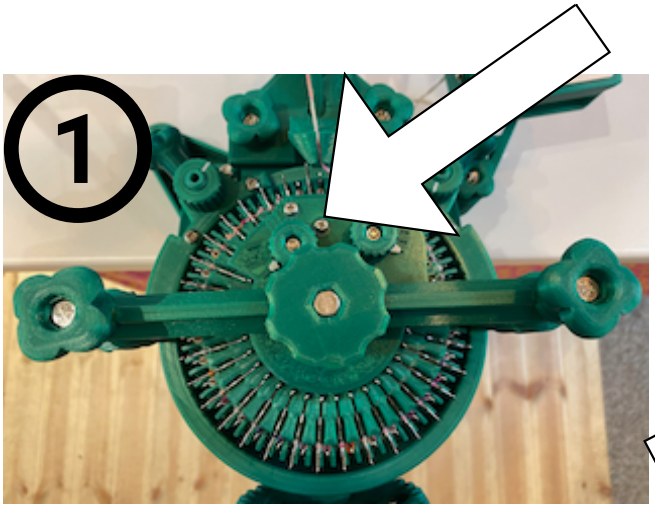
(follow these same instruction if you are finishing your project with rib)



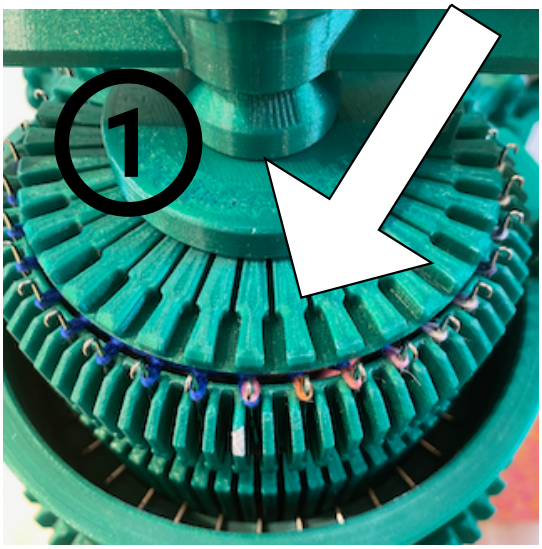


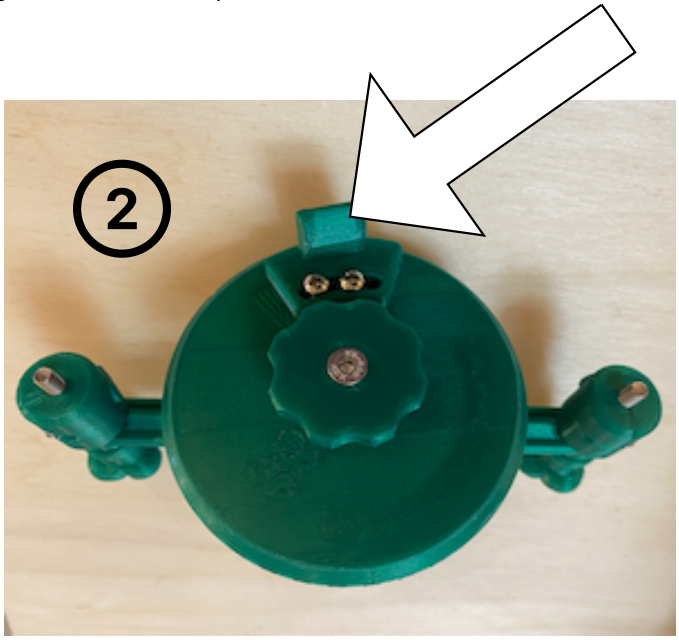
Selvedge Edge Cast On

1 - The small inside screw on the tappet plate should be in line with the 12 o'clock position.
(This is set during testing, but if you are changing dials it will need to be adjusted)
2 - There is a line on the ribber beam to help you align the tappet plate.



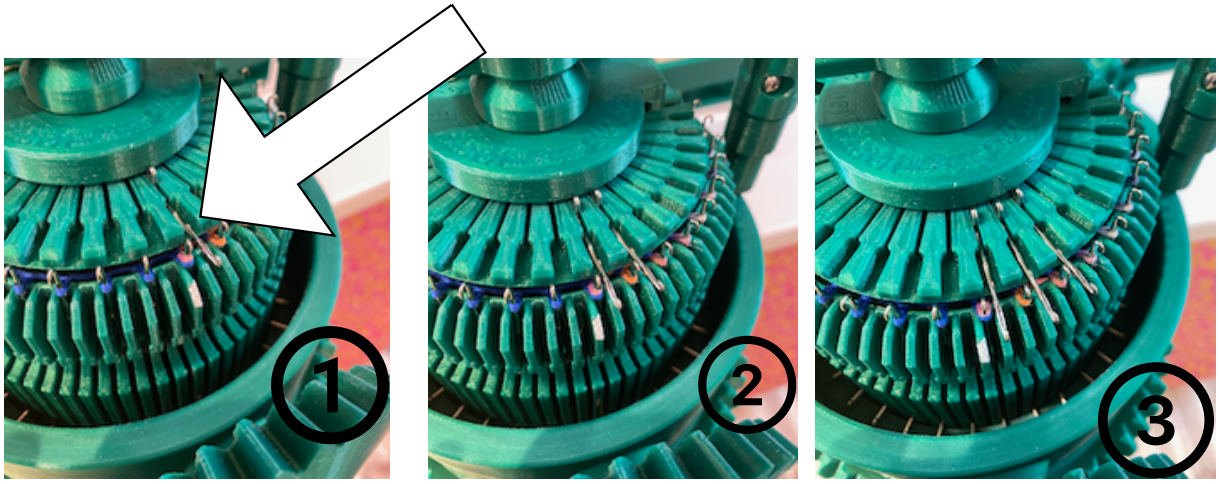
Rotate the dial in an anti-clockwise direction until the dial fin hits the cylinder stopper.
1 - Align the ribber dial so that the ribber needles work between the cylinder needles.
2 - If the dial is out of alignment, adjust the fin below the dial. This adjustable fin can also be used to obtain full or half pitch, using the screwdriver provided with the CSM.



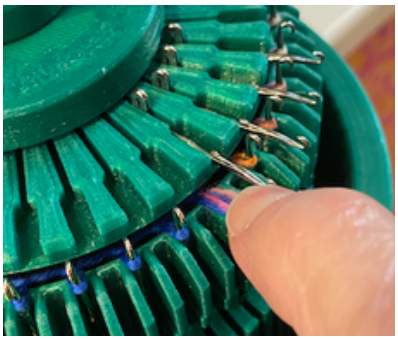


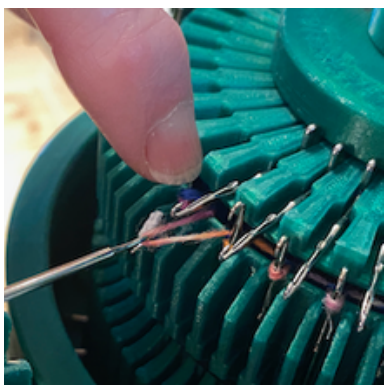
Selvedge Edge Cast On

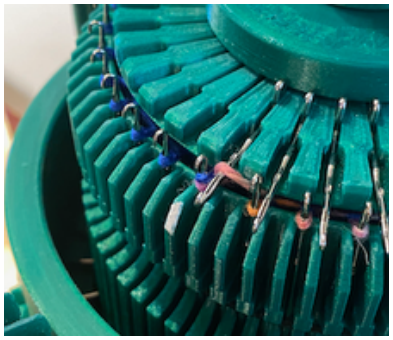
Place the ribber needles in the slots with the latches **OPEN**
Start at the first slot to the right hand side of the main marker at the 6 o'clock position, placing the needles into the dial in an anti-clockwise direction.



Pick up the yarn (that is between the first two cylinder needles and directly opposite the first ribber slot) and place it on the ribber needle



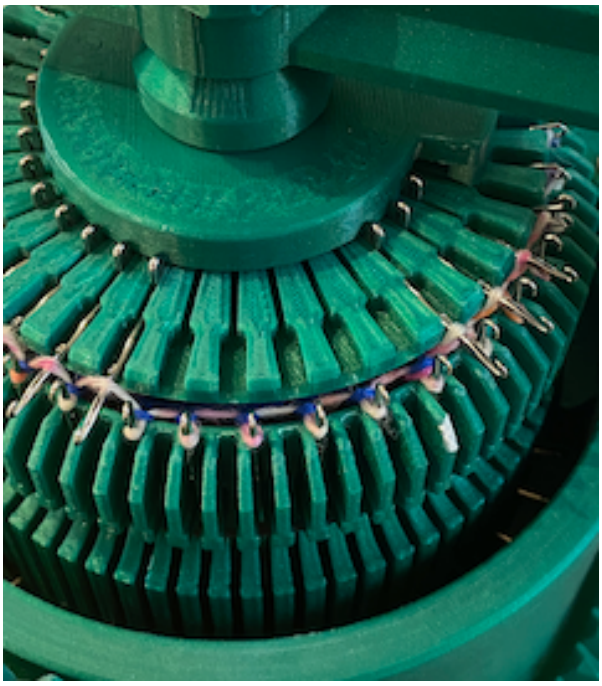




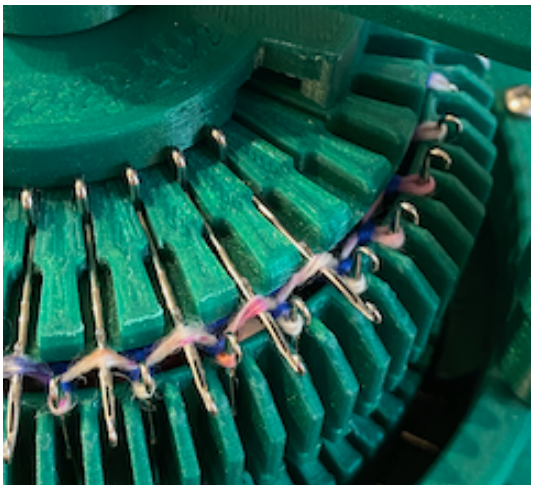
Crank the handle slowly and add ribber needles a few at a time, placing the yarn between the cylinder needles on the ribber needles.

Selvedge Edge Cast On

When you are 3/4 way round, you will notice that the ribber needles will begin to knit, as you continue to add ribber needles and transfer stitches.



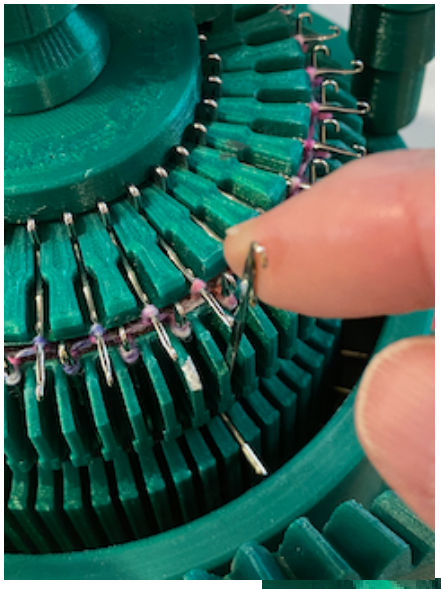
Continue until you have added all of the ribber needles.

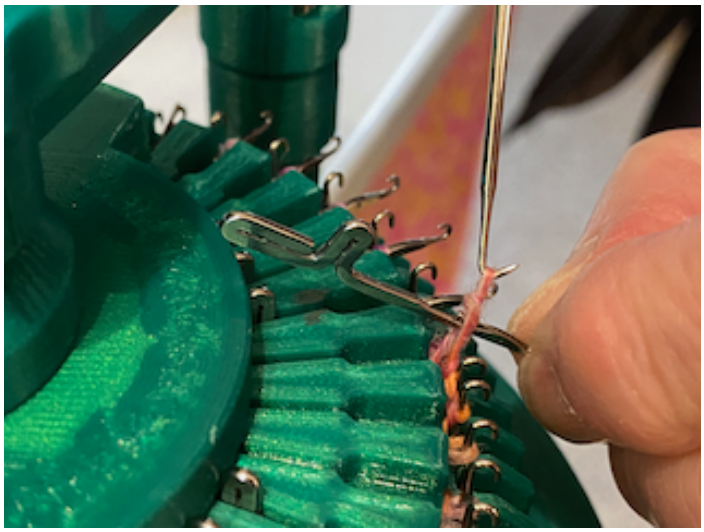


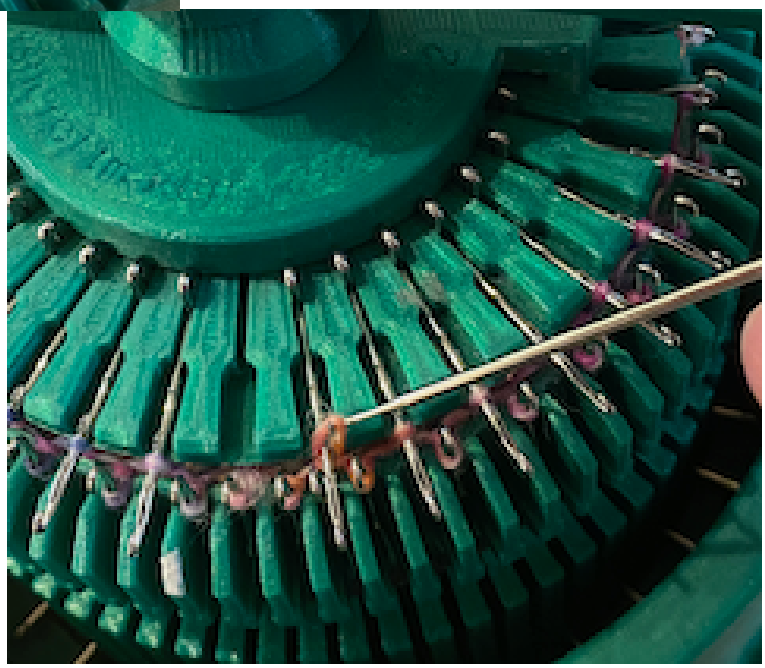
Selvedge Edge Cast On

Continue knitting in rib until you have the number of rows required.

To change to stocking stitch, crank until the main cylinder marker is at the 6 o'clock position. Place the cylinder needles back in the empty cylinder slots, starting with the first needle to the right hand side of the main marker. Transfer the stitch from the ribber needle to the cylinder needle, and continue working in an anti-clockwise direction.

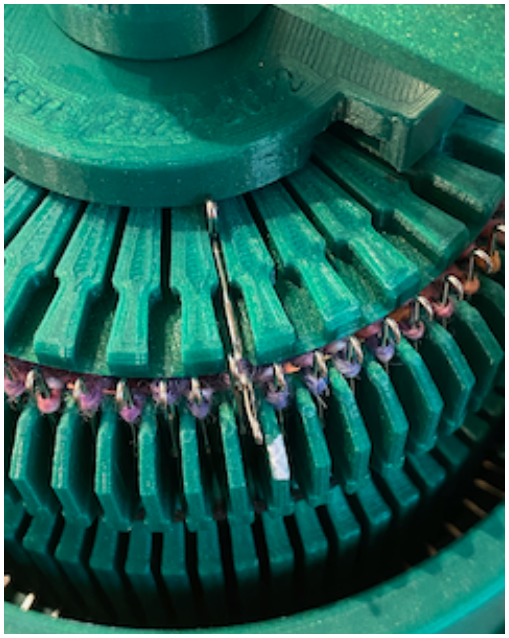


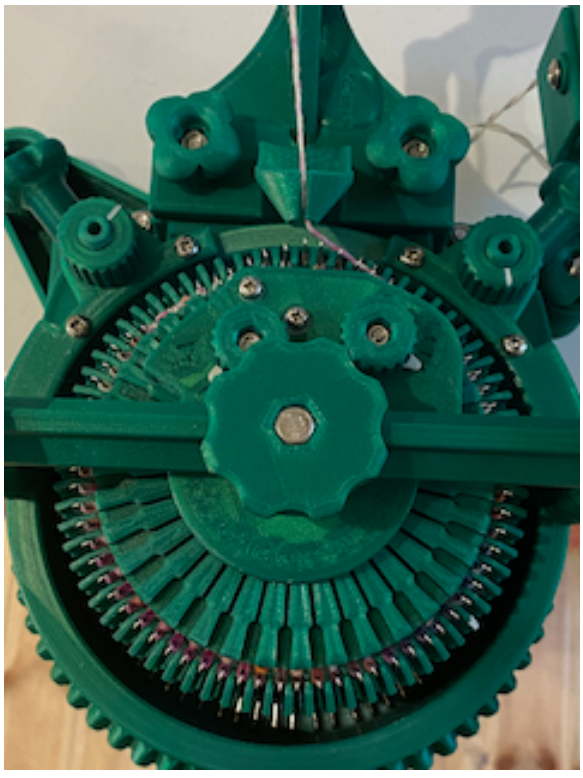




Selvedge Edge Cast On

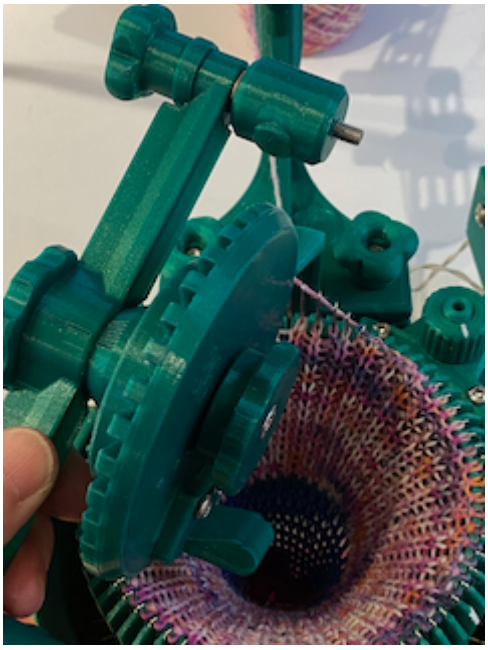
Continue transferring stitches until all the ribber needles have been removed from the dial and all the cylinder needles are back in work.

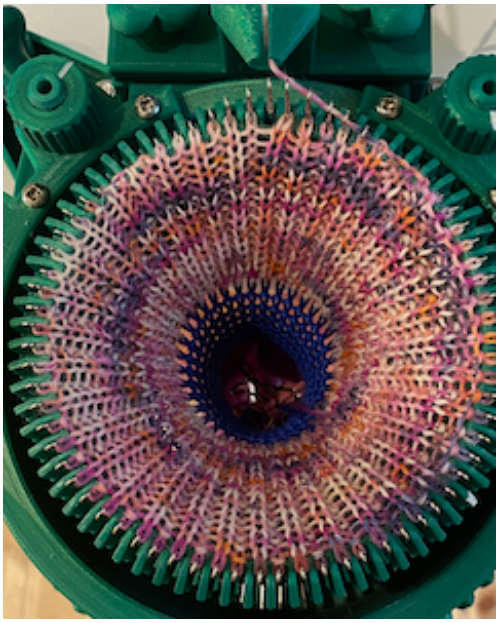




Selvedge Edge Cast On

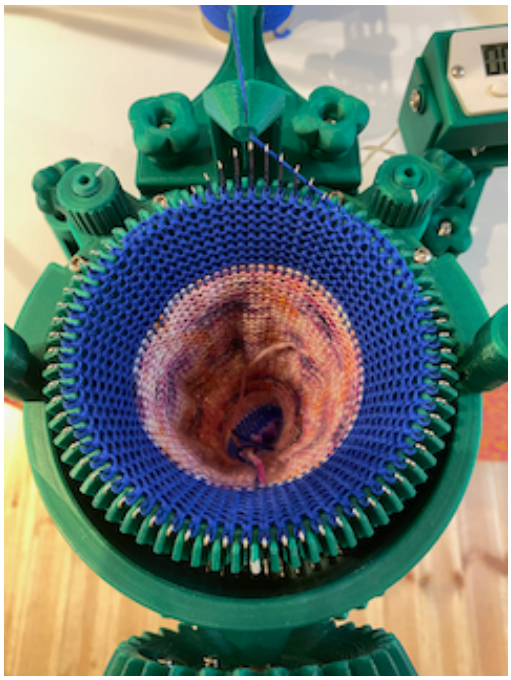
Once all the cylinder needles are back in work, you can unscrew the ribber and remove it from the casing.





Continue knitting until your project is completed. Change back to waste yarn, knit approximately 15 rows and remove your project from the sock machine.

Remove the waste yarn carefully from the selvedge edge.

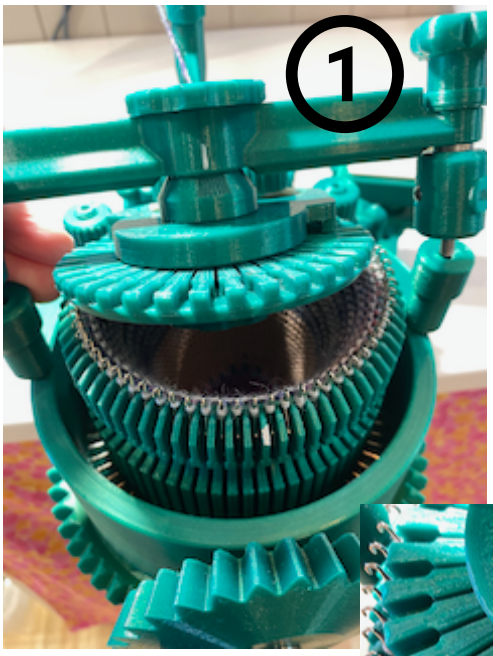


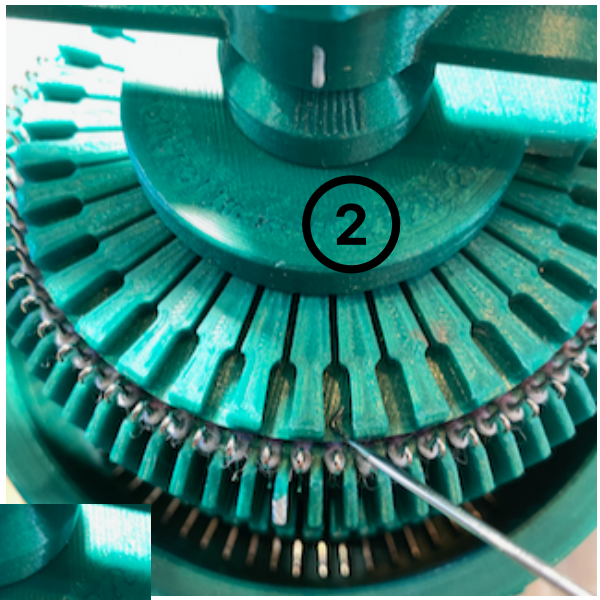
Stocking Stitch to Rib

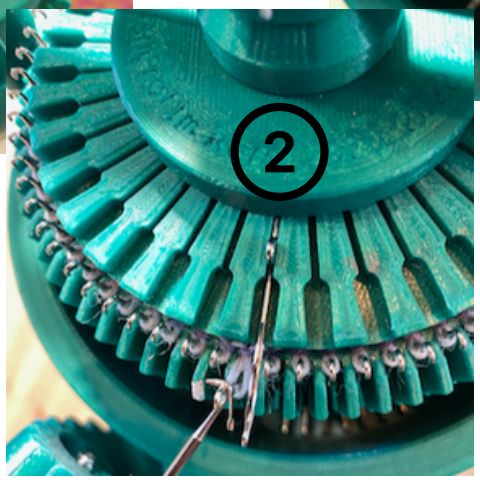
To end your project in rib, make sure that the cylinder stopper is in place before starting your project.

Finish your last row of stocking stitch with the main cylinder mark at the 6 O'clock position. and the cylinder stopper at the 12 o'clock position. You will need to add the 200g weight into the knitted tube for added tension

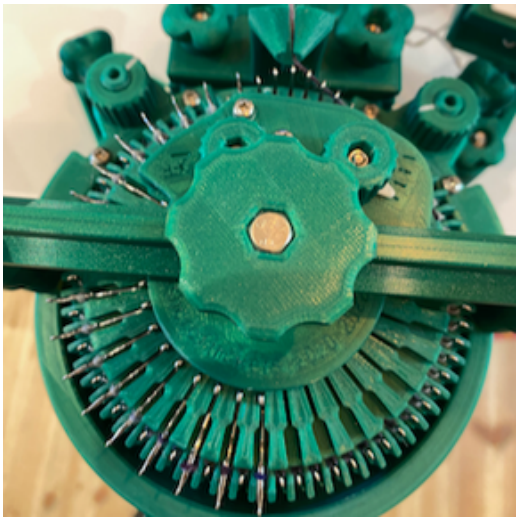
1 -Continue with the same instructions as before, starting with placing the ribber into the CSM bracket.
2 - This time transfer the stitches from every other cylinder needle to the ribber needle, starting at the main cylinder mark. Remove the cylinder needle once the stitch has been transferred.







Stocking Stitch to Rib



Continue knitting in rib until your project is completed.

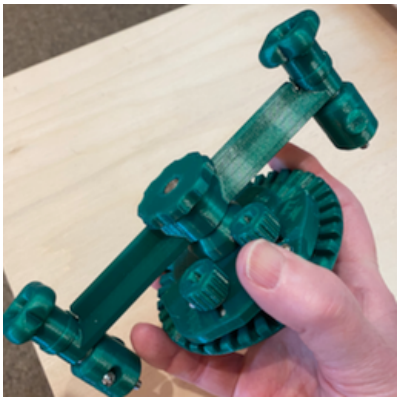
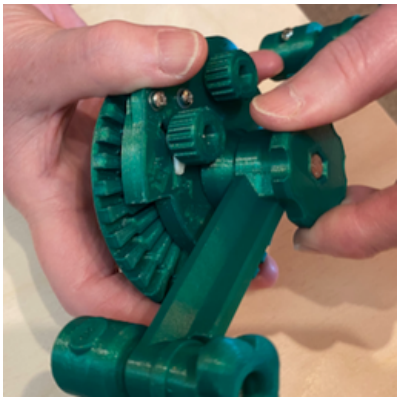
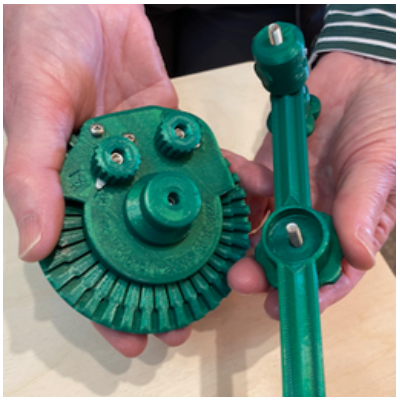
Change to waste yarn, with the main cylinder marker at the 12 o'clock position.

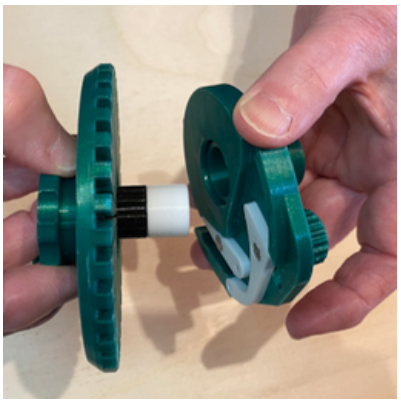
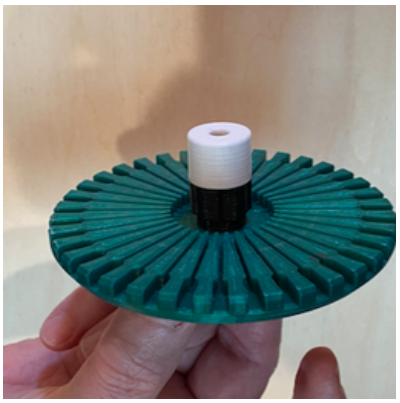
Knit approximately 15 rows, cut the yarn and remove your project from the CSM.

Bind off and secure the live stitches.

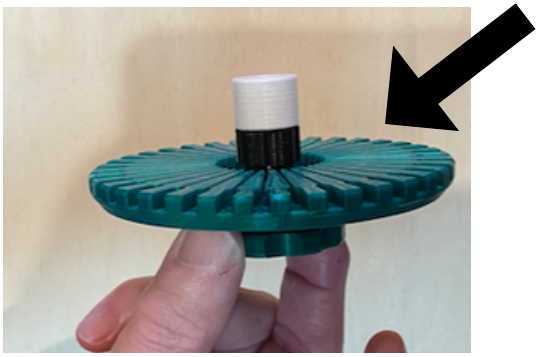
Changing Dials

Hold the tappet plate and the dial.
Unscrew the top knob in an anticlockwise direction, which separates the entire ribber.
The tappet plate will pull off.

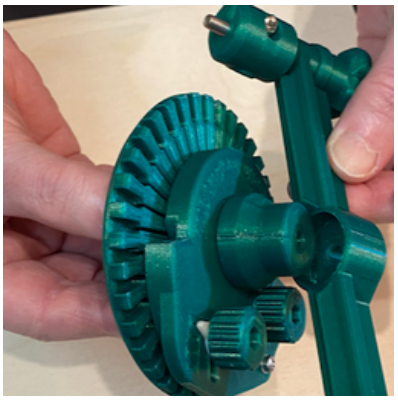
DO NOT ATTEMPT TO DISMANTLE THE DIAL ASSEMBLY AS EACH ONE IS PRE-SET !

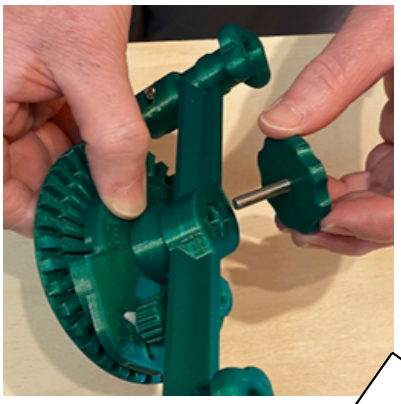


Changing Dials

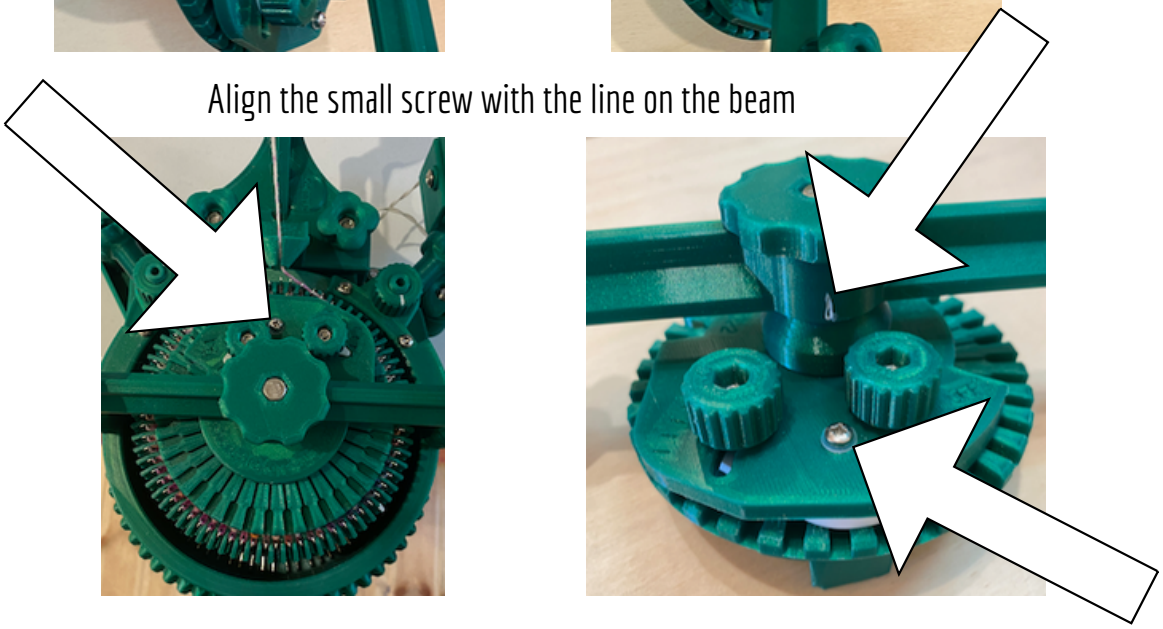
Change the dial and put the tappet plate back over the spacer in the middle of the dial.

Put the tappet plate back into the beam and tighten the screw. The screw has to be tight enough so the tappet plate does not spin.





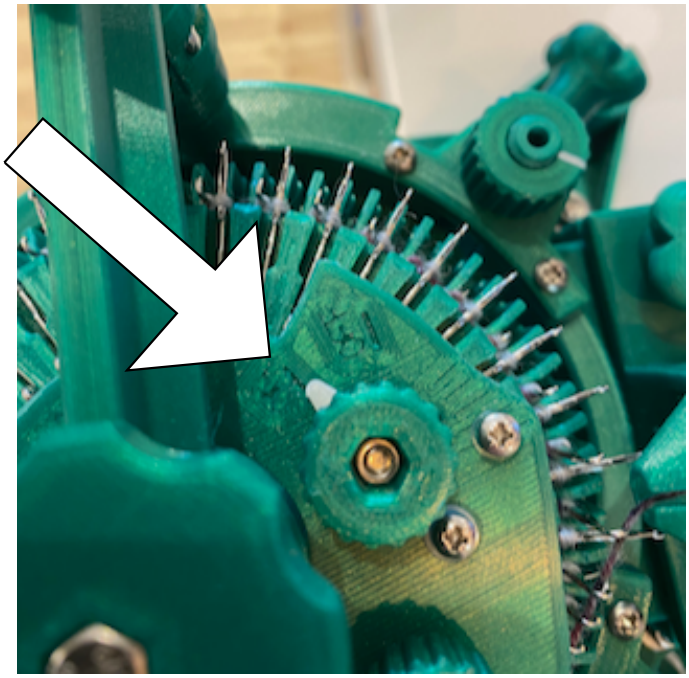
Align the small screw with the line on the beam



Ribber Settings

Tappet Switch

This dial should be pointing to ON when knitting in rib.



Ribber CAM

This operates the tension