

Cast Cylinder

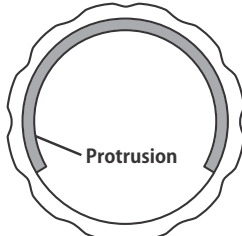
Objective of the Puzzle: Take apart and put back together

Difficulty Level: 8 (on a scale 5-10)

Manufacturer: Hanayama

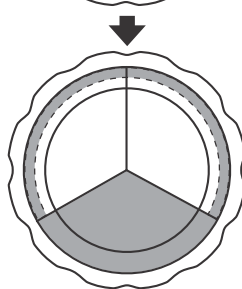


Points on how to solve

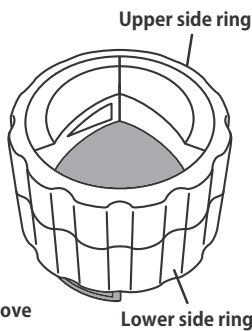


Looking down from above

The outer ring of the 2 circular pieces have an inside protrusion as shown on the left diagram. There is no inside protrusion on one-third of both the outer rings. These protrusions are structured so that the inside pieces do not fall off.



Position where the inside pieces move



When the inside piece is positioned so that it lines up with the section on the outer ring without the protrusion, the inside piece moves up or down. This allows you to find the location where there is no protrusion.

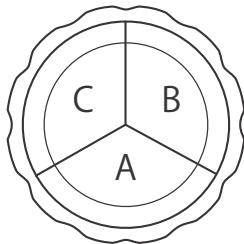
When the position of the upper ring and the inside piece is correct, the piece, as shown in the left diagram, will sink down. Contrarily, if the lower ring and the inside piece is in the correct position, the inside piece will rise up.

Explanation

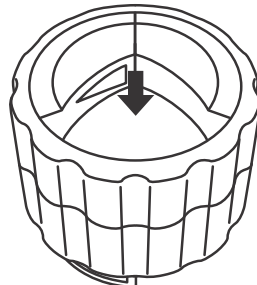
The place to start is to find the location where there is no protrusion in each of the ring and to align this location together.

①

Looking at the right diagram from the top. Name each inside piece as A, B, and C when at this setting.



When the position where there is no protrusion on the outer ring is aligned together, the inside piece can be lowered.

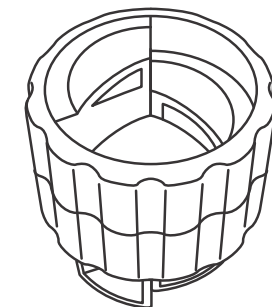
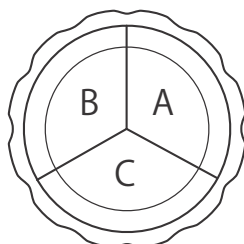


With the outer rings and the inside pieces in the position as shown to the left, rotate 120° in a counter-clockwise direction.

※ When the inside piece selected is not the right one, the inside piece will not rotate. In that case, search for the piece that does move. With the ring position fixed as is, rotate the inside piece 120° and align the piece to the position without any protrusion to find a piece that moves.

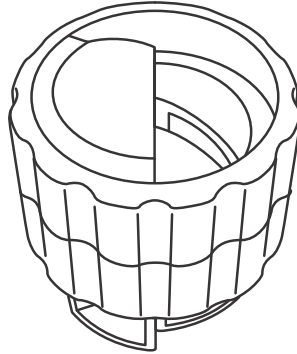
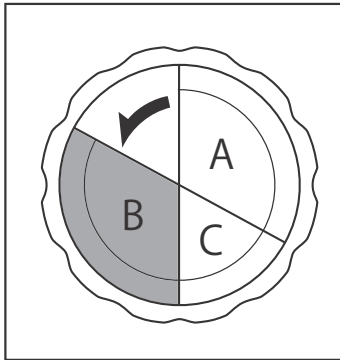
②

Looking at the right diagram from the top



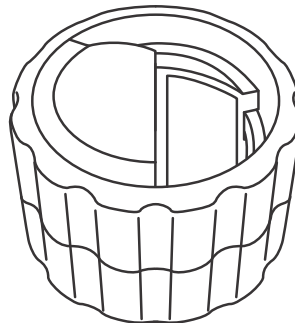
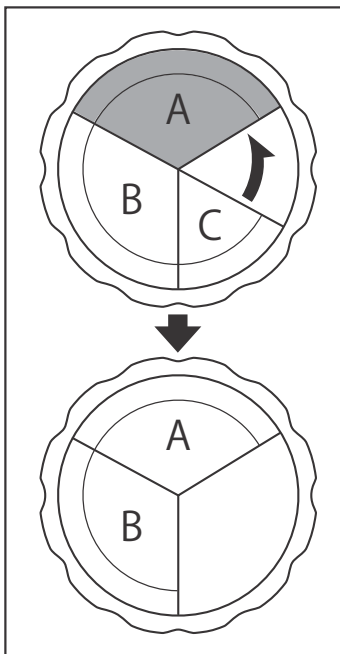
C will move down when rotated.
C will move down even further than A moved in step(1)
If it does not move down to the same position as A, the location where there are no inside protrusions on the outer rings are not fully aligned. Rotate the outer piece a little to align the top and bottom together.

③



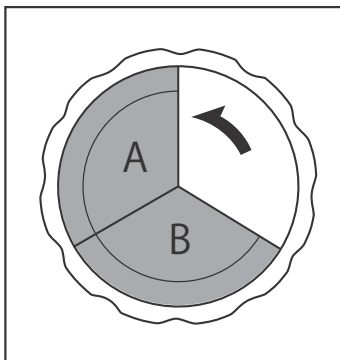
Rotate B in a counter-clockwise direction 60°.

④



Rotate A in a counter-clockwise direction 60°. C will drop off.

⑤



Rotate the remaining A and B in a counter-clockwise direction and B will fall off followed by A.