

# Small Report

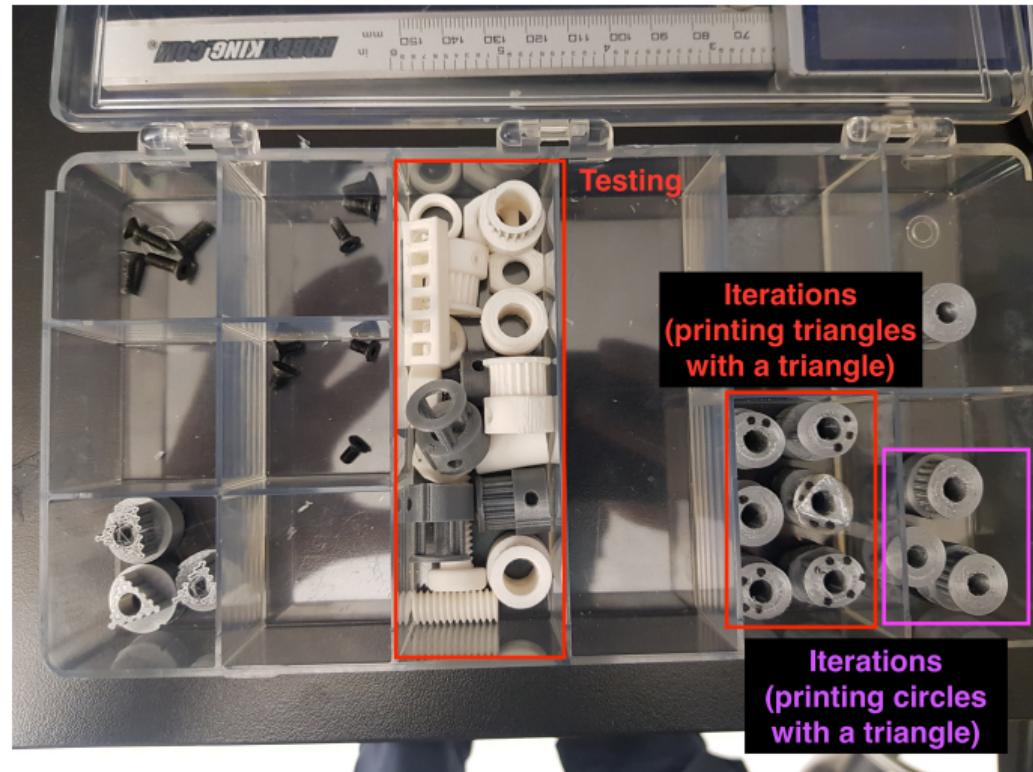
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# Iterations triangle-triangle

Let  $C_0$  the first triangular pulley and  $C_{n+1} = f(C_n)$  the process of printing the next triangular designed pulley  $C_{n+1}$  using the printed triangular designed pulley  $C_n$ .

In the picture we can see  $C_i$  with  $i \in \{1, \dots, 6\}$ .

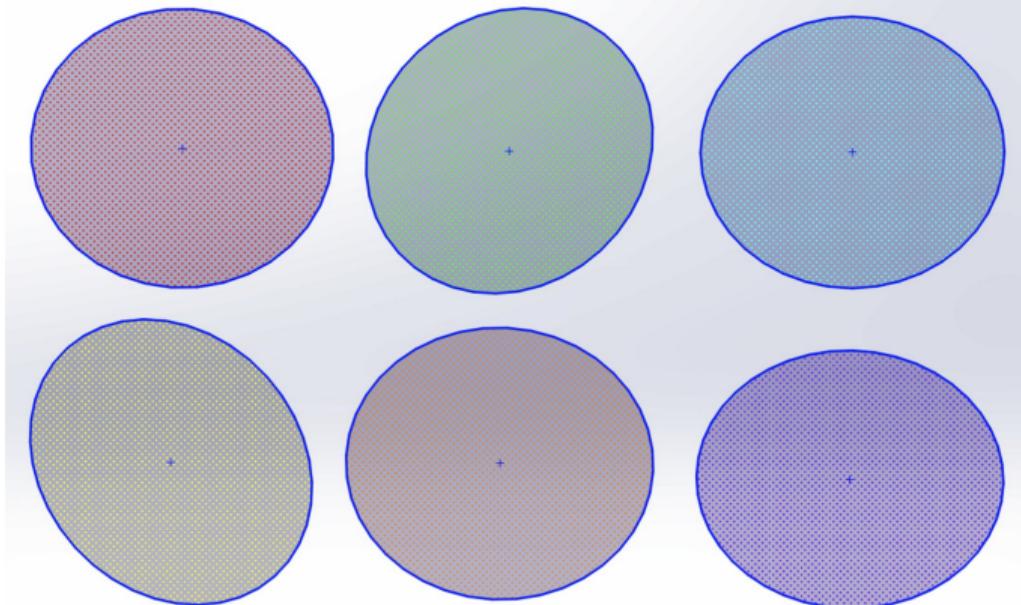


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In the picture, we can notice the deformation in the cylindrical bases of

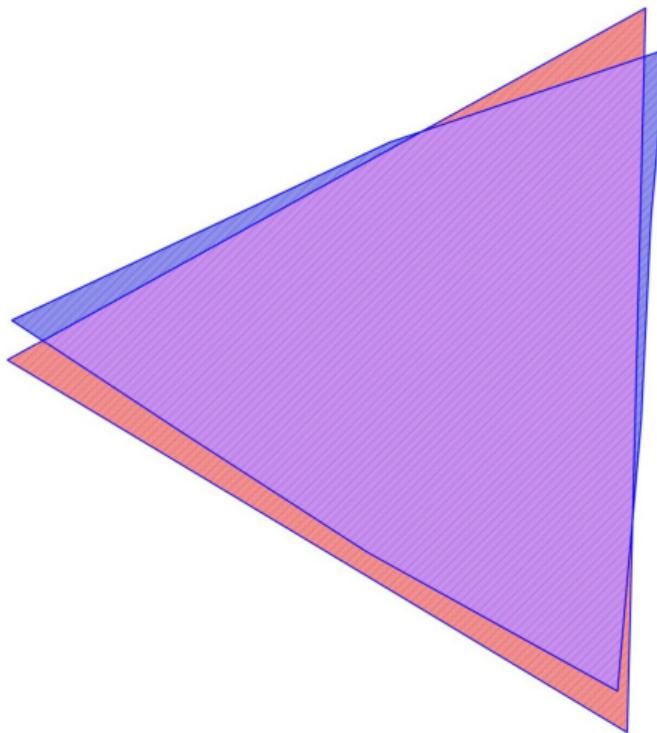
$$\begin{matrix} C_1 & C_2 & C_3 \\ C_4 & C_5 & C_6. \end{matrix}$$

It may be necessary more iterations to find a pattern. But we can observe an improvement in the shape from  $C_4$  to  $C_5$ .



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In the picture, we can see the triangular shape of  $C_0$  and  $C_7$ .



## Possible future step

We can identify the step motors' controllers (A4988) in the printer's motherboard. If we can substitute the main controller, ATMEGA1284P, we can modify the printer's software. It can be reasonable to spend some time on this and see if it can be done.

