

CELLINK®

Description: This document will explain how to place two objects into Heartware and program the BioX to print one part with two separate extruders.

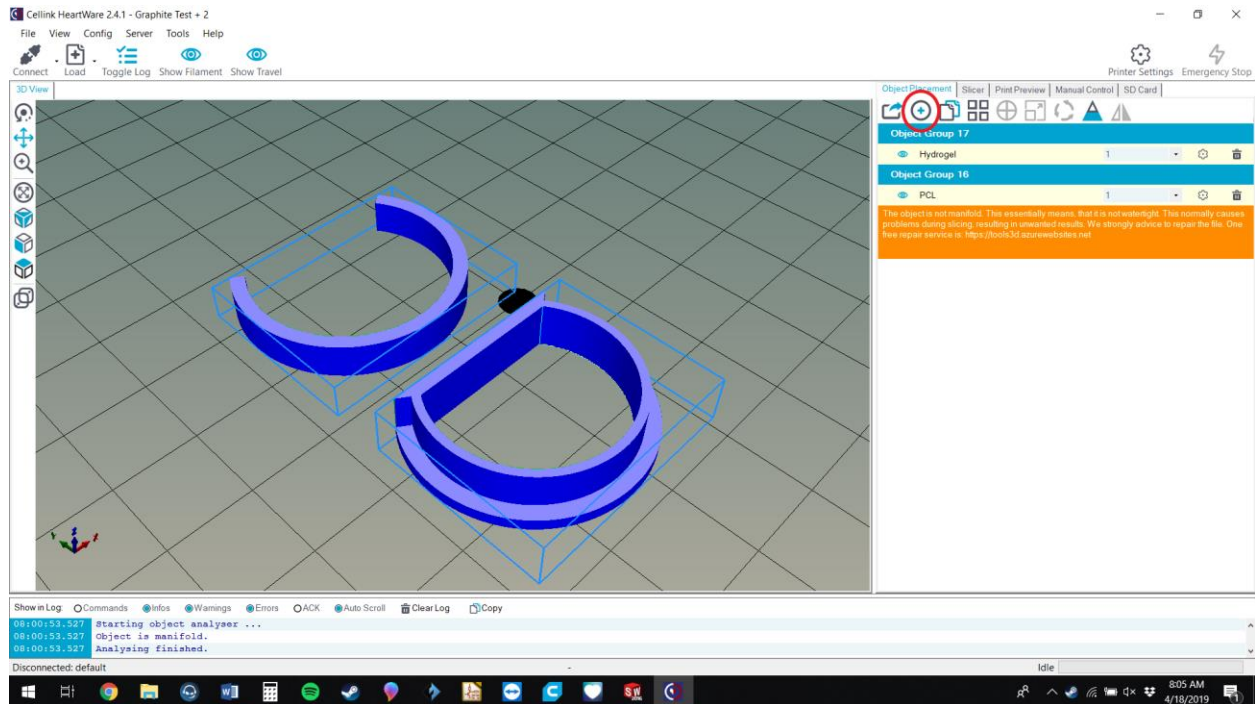


Figure 1: The first step is to insert both of your structures using the plus symbol on the right.

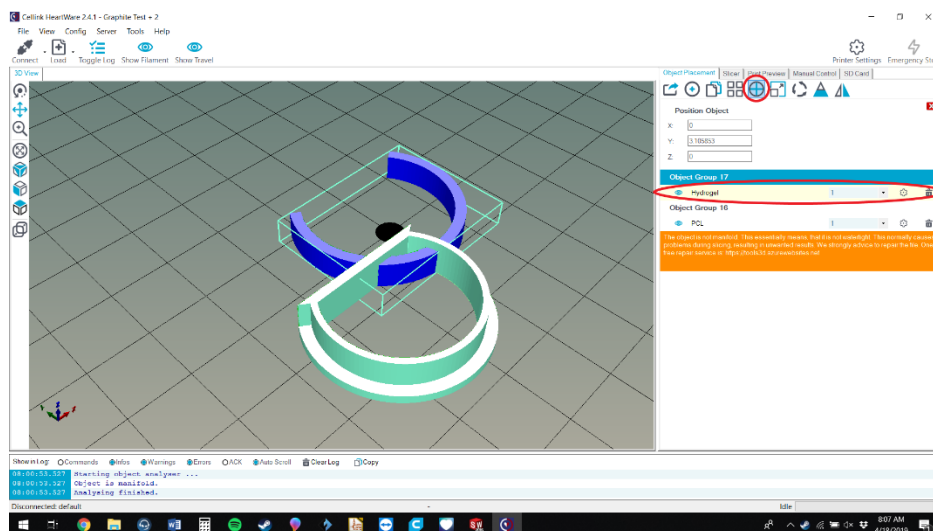


Figure 2: Center both objects using the button circled at the top and make sure to click the individual objects.

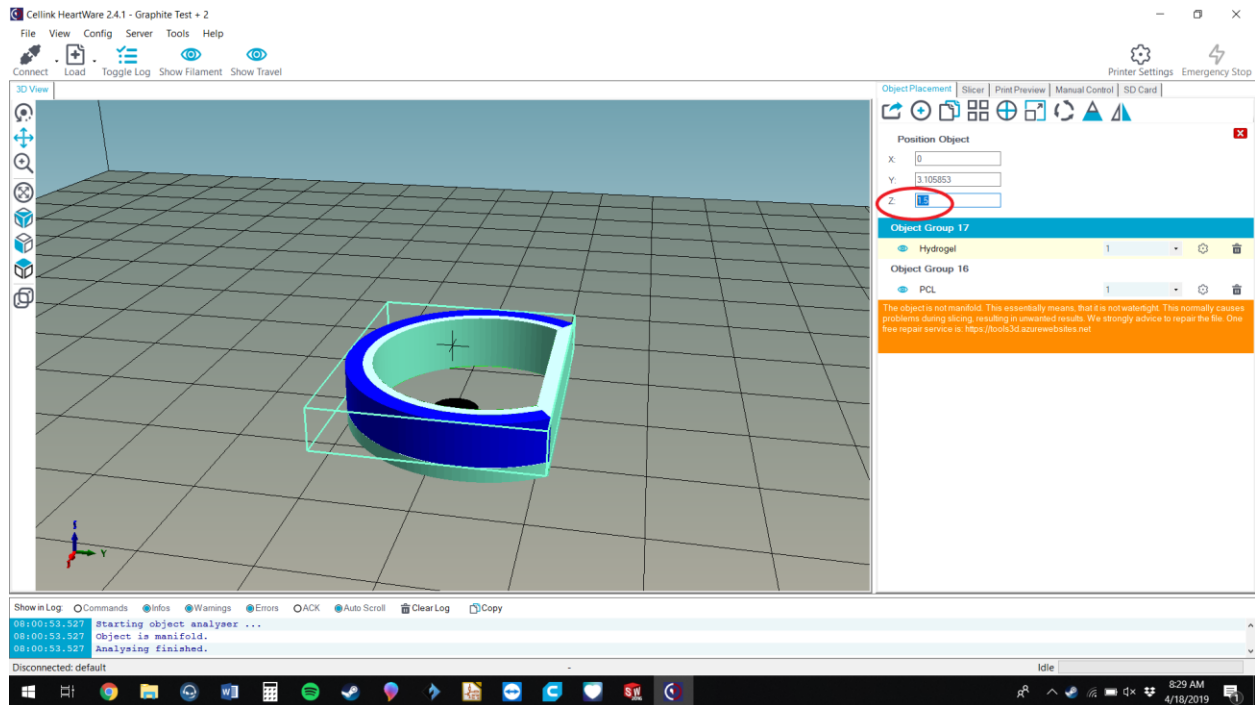


Figure 3: Now this next part is tricky unless you know the exact dimensions of your object and that is adjusting the Z height, which I found to be around 1.5mm. I didn't circle the button but the button that allows you to edit these movements is the left blue button that shows arrows pointing in all directions. If you accidentally move the object with your mouse, which is a common mistake, just recenter the object and move the Z again.

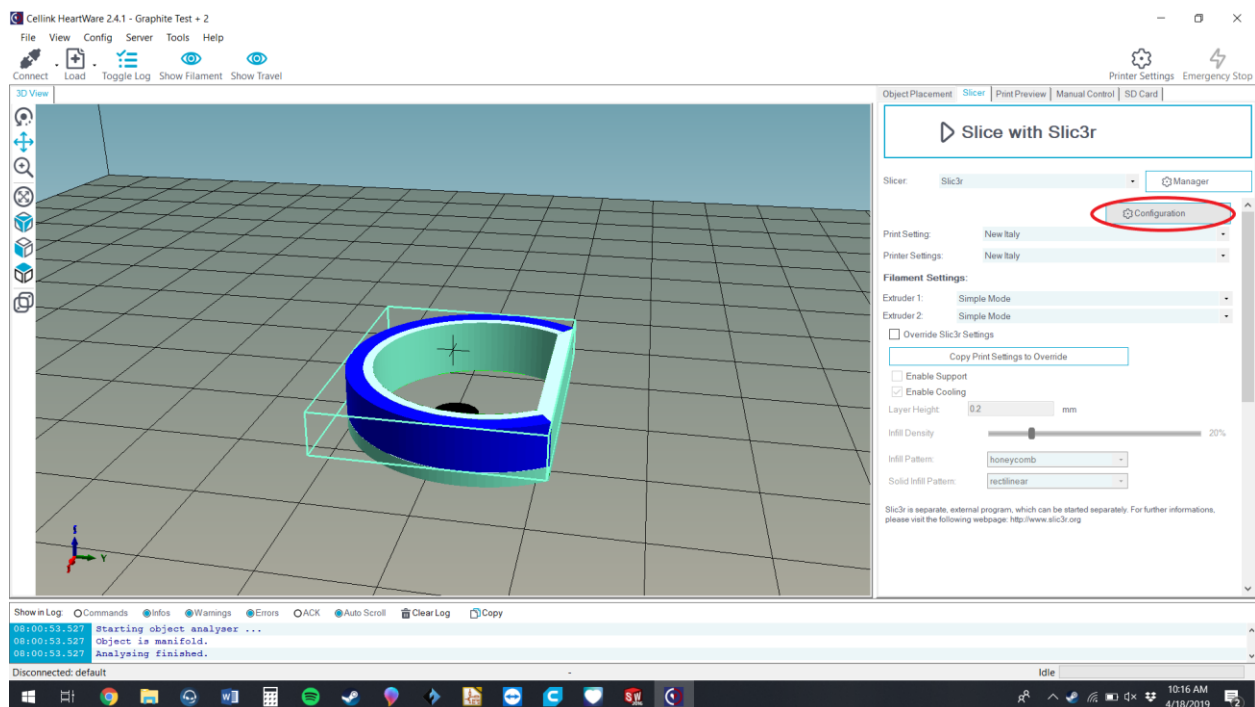


Figure 4: Once your structures are in place it is time to configure your settings in Slic3r to add more extruders.

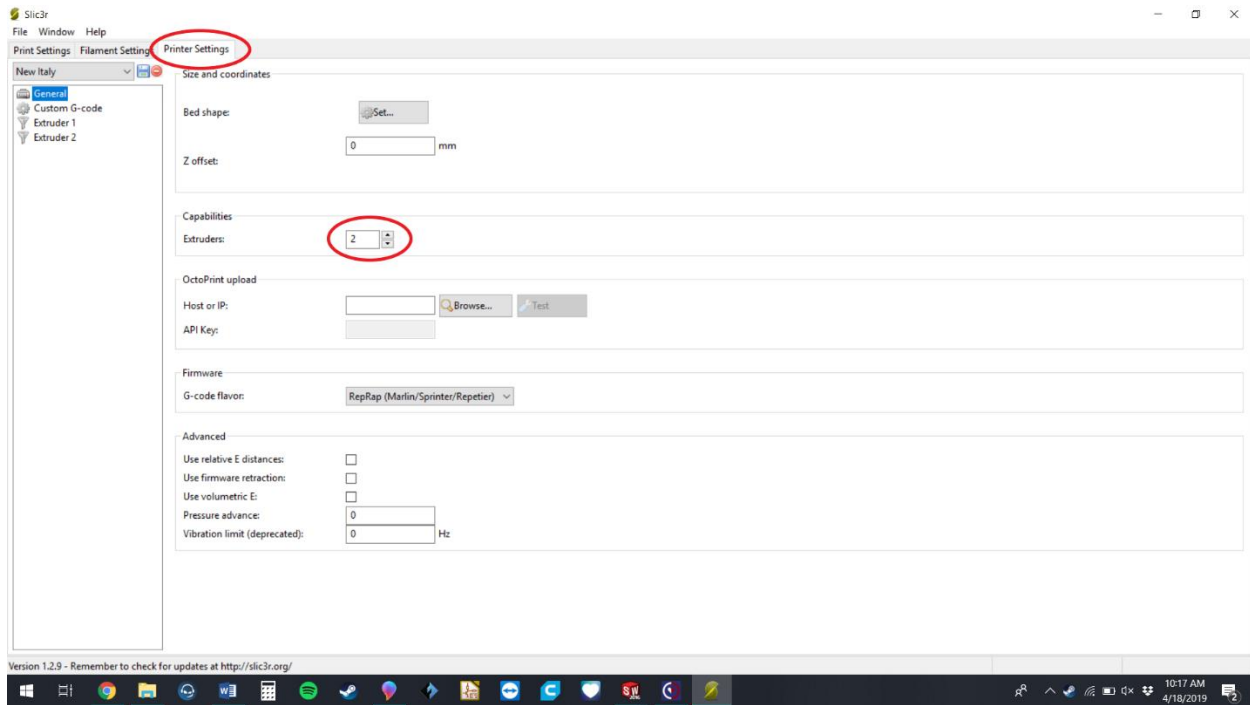


Figure 5: In the printer tab of Slic3r please set the number of extruders to two or three depending on how many structures you have and how many extruders you would like to use on the BioX.

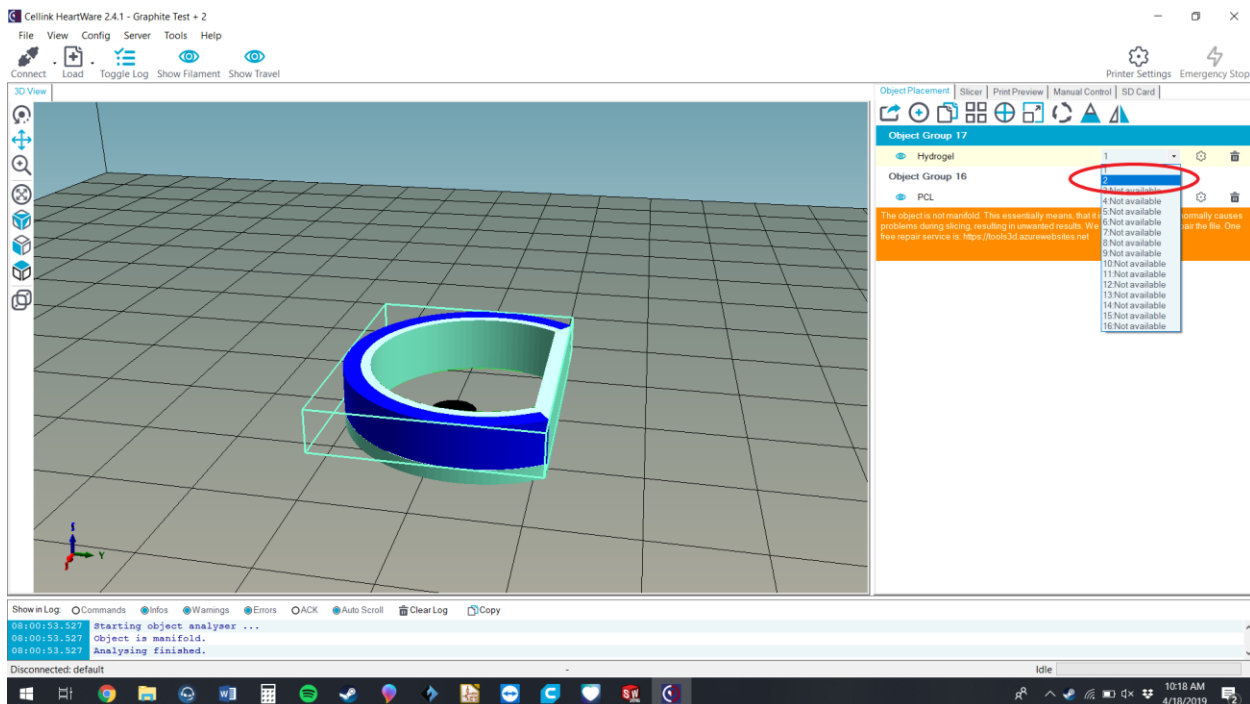


Figure 6: Depending on which construct you want printed with which printhead you will select the specific object and click the number drop down to determine whether it will be printed with PH 1 or PH 2.

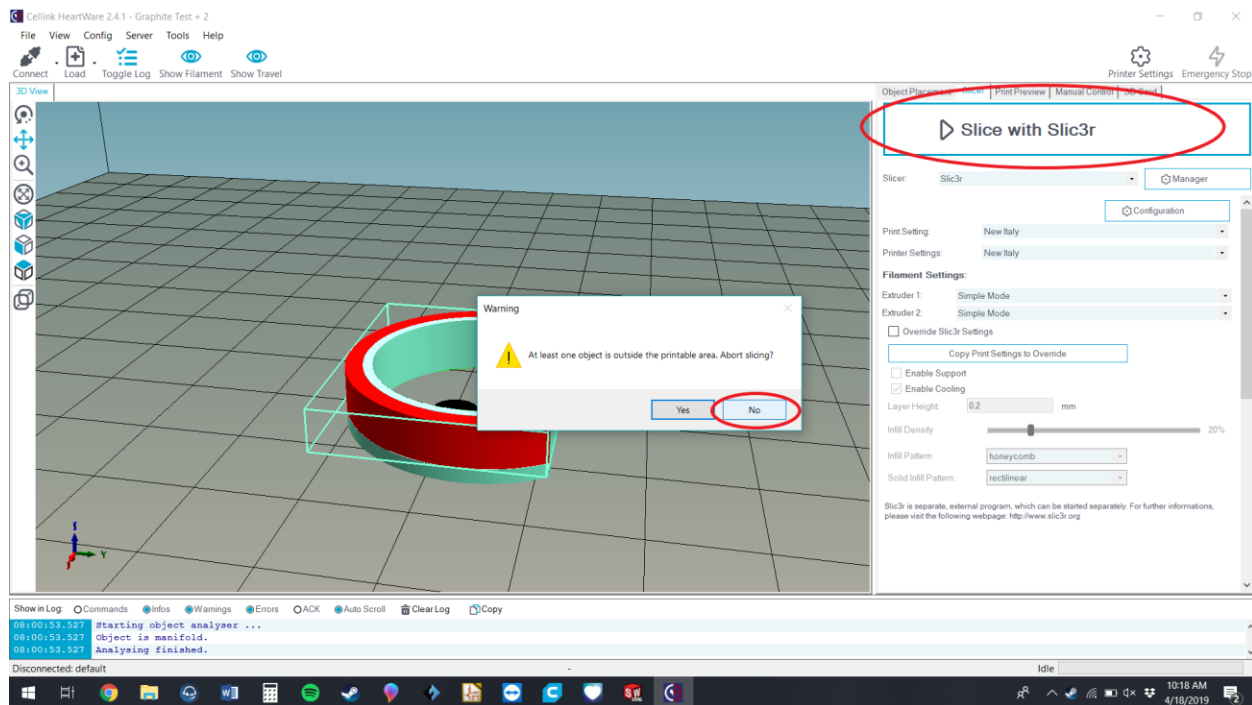


Figure 7: The next step is to slice the object and make sure to click “No, you would not like to abort the slice”

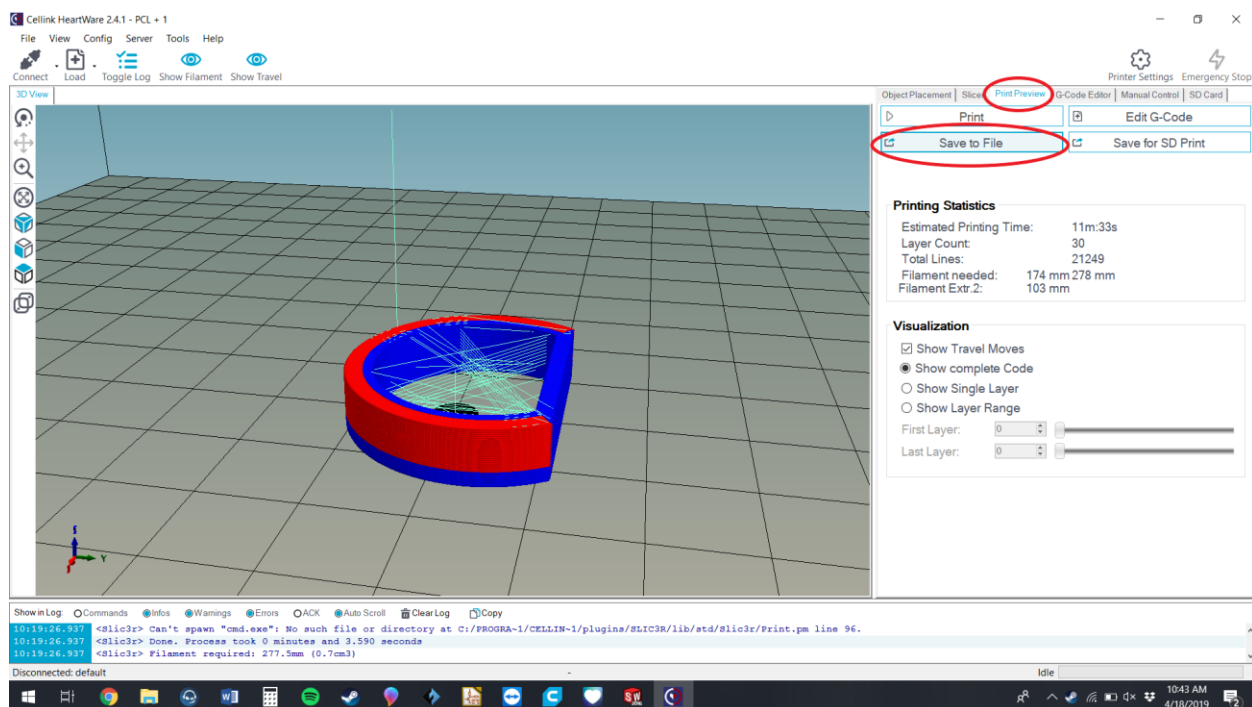


Figure 8: For the final step you can click the Print Preview tab and save the file to your USB drive. Make sure to have HeartOS 1.6 installed on your BioX in order to change the speed of your print instead of your BioX following the gcodes' speed. You can find this update on dna.cellink.com or I can send you the update if you're having trouble receiving it from that website.

Congratulations you created a gcode that can print two separate constructs with two different printheads. Happy Bioprinting and I hope this guide helps you accomplish your goals!