

# Rowdy Walker 3D Printing

**Material:** Blue ABS

**Cura Settings:**

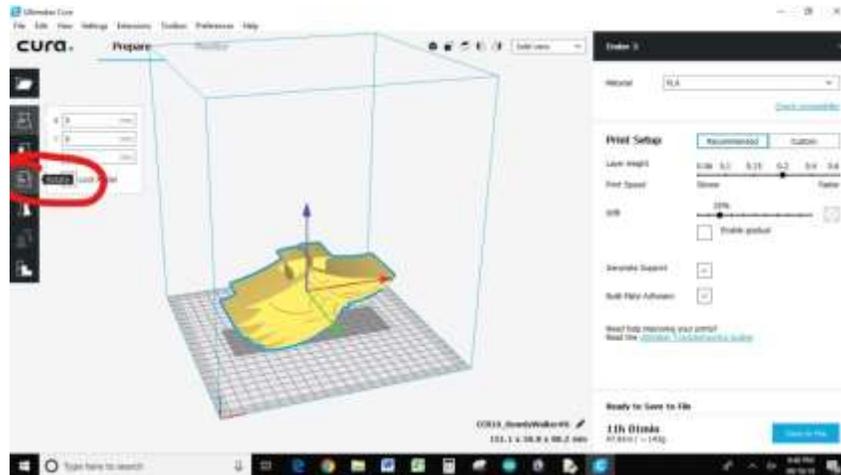
- 60% - 80% infill
- Support type: everywhere
- Platform adhesive type – Brim
- Print scale – 75%

**Printing Steps:**

1. Remove current filament
  - Using the interface on the bottom front of the printer, cycle to **Material/PrintCore** and select it
  - Cycle to Material 1 and select it
  - Cycle to unload and select it
  - The printer will undo the material automatically
  - Remove the material spool from the spool holder by gently pulling out the filament rod
2. Load Blue ABS Filament
  - If your spool is used, use scissors to cut off about \_\_\_\_ inches
  - Load the spool on the back of the printer
  - Using the interface on the bottom front of the printer, cycle to **Material/PrintCore** and select it
  - Cycle to Material 1 and select it
  - Cycle to Select Type
  - Select ABS Blue
  - Cycle to Load and select it
  - Lift up the notch to feed about an inch of the filament
  - The printer will automatically feed the rest of the filament into the tube
  - Follow the instructions on the interface
3. Open Ultimaker Cura
  - (Download here: <https://ultimaker.com/en/products/ultimaker-cura-software>)
4. Upload the Rowdy Walker .stl file

5. Model is upside down

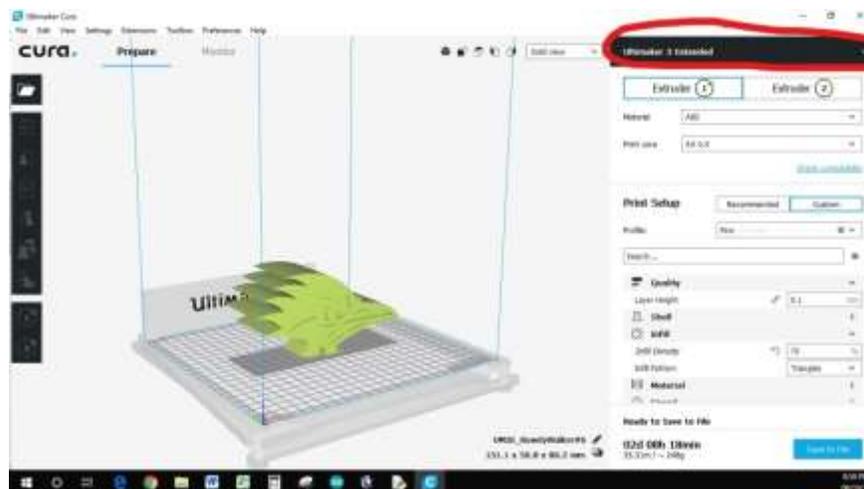
- Click on the walker
- On the far left side of the screen, click on the rotate symbol



- Hover over the red spherical line, click on it, and drag clockwise until the model rotates 180°
- Click on empty space to exit the rotate function

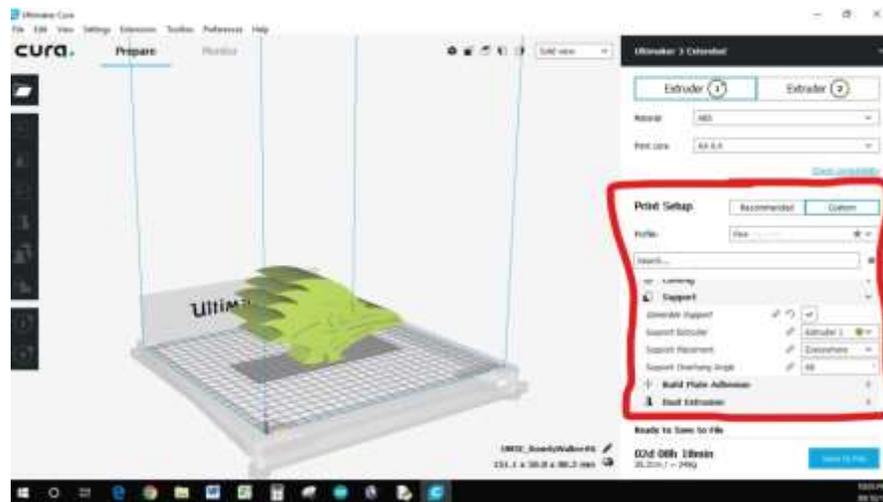
6. Correct upper settings selected

- At the top right of the screen, make sure the printer model is the same model you will be printing on.
- Make sure the extruder that is connected to the Blue ABS is selected
- Make sure the material ABS is selected
- Make sure the Print Core is set to AA 0.4
- Example: I am printing with ABS Blue filament on the Ultimaker 3 Extended and using Extruder 1



## 7. Change print settings

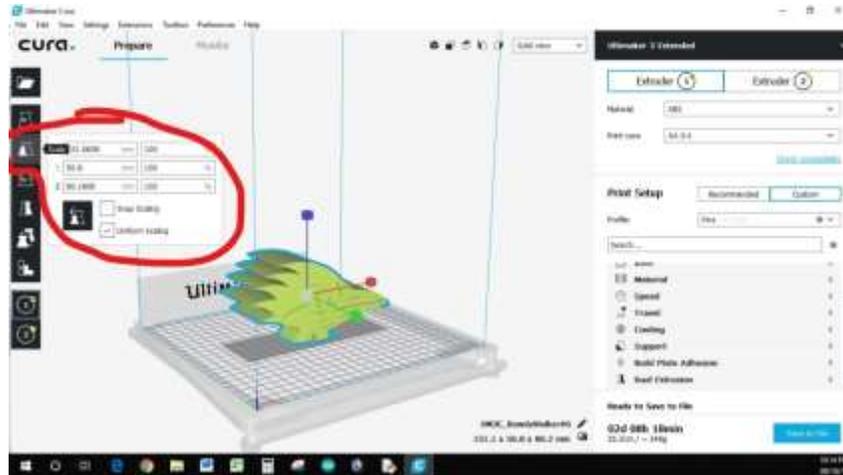
- On the right of the screen, under the Print Setup section, click on the Custom tab
- Click on the drop down arrow for **Infill** then type in any value between 60 and 80
- Set the Infill pattern to triangles
- Click on the drop down arrow for **Support** and change the support placement to Everywhere
- Make sure the **Generate Support** is checked
- Make sure the extruder that you will be using is selected



- Click on the drop down arrow for **Build Plate Adhesion**
- Make sure enable prime blob is checked
- Change Build Plate Adhesion Type to Brim
- Make sure the extruder that you will be using is selected

## 8. Scale the model

- Click on the model
- On the far left of the screen, click on the scale function



- Highlight a percentage value for any of the axes. Change the value to 75. The two values for the other axes will change automatically.
  - Click on empty space to exit the scale function
9. Export file
- Click on the pencil icon to change the name of the file
  - Plug in a USB
  - The blue rectangle will say, “Save to Removable Drive” when it has detected the USB
  - Click on “Save to Removable Drive” or click its drop down menu to select a specific device to save to
  - The file will be saved as a .gcode.gz file type
  - Safely eject the USB from your computer
10. Begin print
- Plug in the USB into the 3D Printer
  - Cycle to **Print** click to enter
  - Cycle to the file you want to print and select it

## Removing Material:

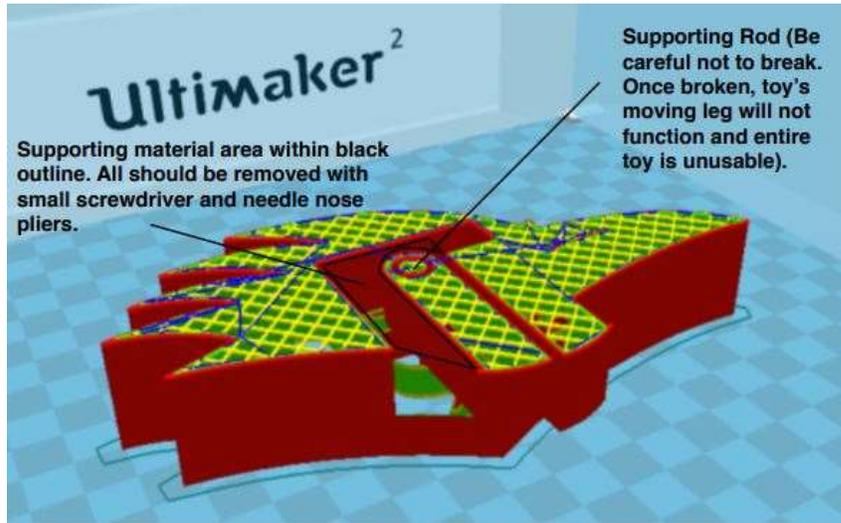
### 1. Tools needed

- Box knife
- Diagonal cutting pliers

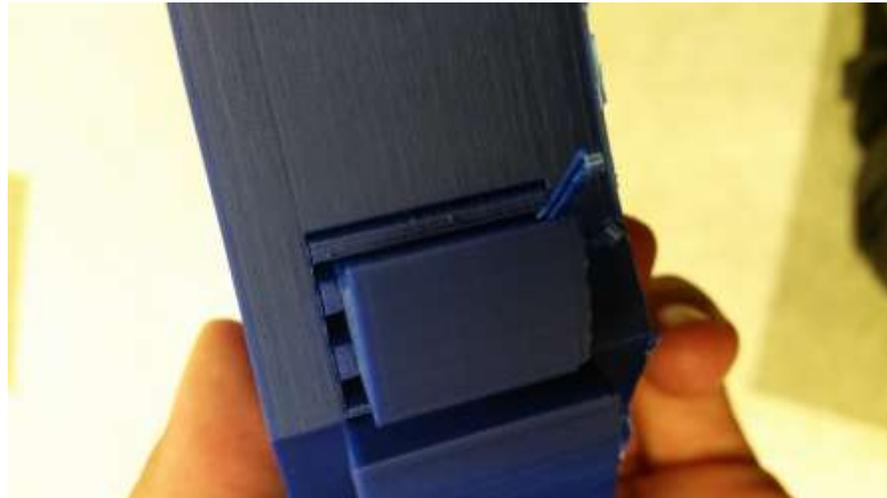


## 2. Cutting the support material

- Work slowly and carefully!
- This is the cross-section of the model. The goal is to remove the support material so the walker's back leg can move freely.

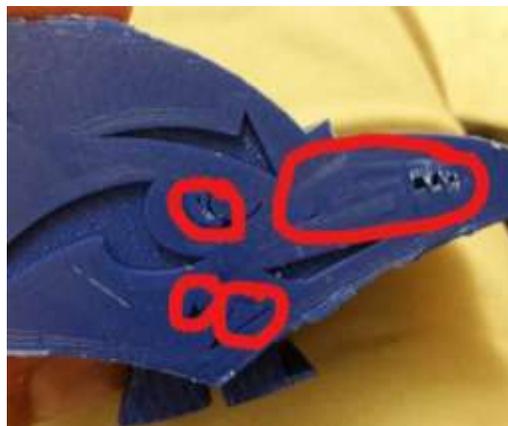


- Be careful not to break the support rod (Indicated in the picture above)
- Use the diagonal cutting pliers to cut/pull out the support material
- The support material is shown in red





- Once the support material is removed and the back leg is free to move, a few more sections still need to be removed (Shown below)



- Use the box knife to get under the extra pieces and remove them. The material does not need a lot of force to remove it. Point the knife away from you and anyone near you at all times.



- A photo taken while removing some of the extra material



- Finished!

