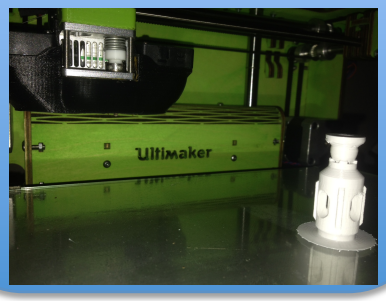
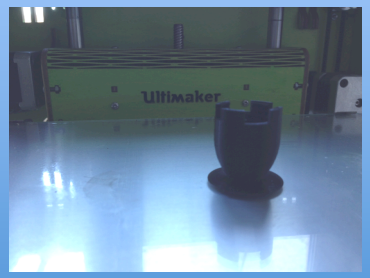
Sonic Screwdriver

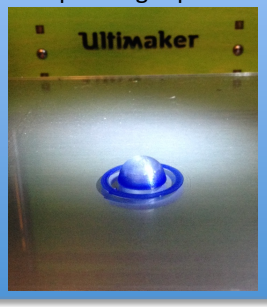
Print all white parts: top.stl, internal.stl, main.stl, maintop.stl, switch.stl, bottom.stl and battery4.stl



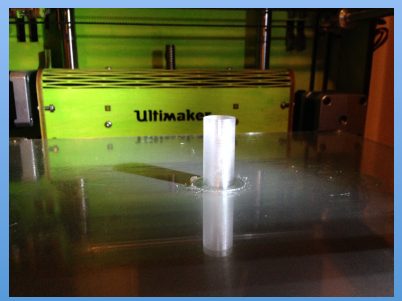
Print black part: cap.stl



Print transparent blue light part: light.stl
1) First fill nozzle with blue filament. 2) Retract filament. 3) Insert transparant filament and print light part.



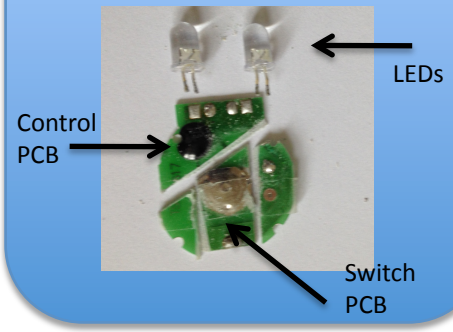
Print transparant tube (tube.stl) using transparant filament.



Sand white parts and paint with silver paint.

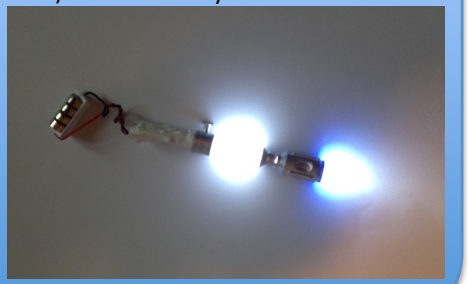
Take bicycle light apart.

Separate leds, control and switch from bicycle light. Connect them with electrical wires.



Glue top part, tube and internal part together. Insert leds and wires. One led on top and one led in tube. Put switch PCB in internal part underneath hole for switch. Glue light on top. Put heat shrink around control PCB.

Inserts batteries into battery part (in my case 4 because the bicycle light needs 6 Volts). Test assembly.



Glue maintop, main and bottom part together.

Insert first assembly (without batteries), reconnect battery pack and screw on black cap.

Have fun! Push button and make sonic sounds ;)

BOM:
- filament: transparant (e.g. colorfabb clear_XT), blue, white and black.
- Super glue
- Bicycle Led light (blinking led)
- Switch (push button)
- Electical wire
- Heat shrink tube
- Four LR44 batteries

Tools:
- 3D printer
- Solder station
- Silver paint (in case of using white filament).
- Sanding paper

Used print settings (depends on filament type used and printer):
- Nozzle temp: 190 dC (for the colorfabb clear_XT I used 250 dC).
- Speed: 100 m/s
- Bed temperature: 60 dC
- I used a brim, but it also prints without