

Airsoft Sound Device V3

**PLEASE READ THE INSTRUCTIONS THOROUGHLY
AND WATCH THE VIDEO LINKED BELOW BEFORE
ASKING QUESTIONS**



The timed fuse assembly is not detailed in this document but can be found in the video.

Assembly video can be found here: <https://youtu.be/n1GOHsLrYXg>

The hardware BOM for both fuse types are on the following pages

IMPACT Bill of Materials

Please verify that you are ordering the same size components listed below. The links do not direct you to the exact size/spec you will need.

Item	Quantity	Link	Notes:
M5x50mm	1	X	
M3x30mm SHCS	1	X	
12mm od x 40mm 1.2mm diameter spring	1	X	Spring sizes from 40-50mm in length will all work
25mm keyring	1	X	
M2.5x35mm Cotter Pin	1	X	
M3 Brass Insert 5mmODx4mmL	1	X	Not necessary, only for increased durability
M5 Lock Nut	1	X	

TIMED Bill of Materials

Please verify that you are ordering the same size components listed below. The links do not direct you to the exact size/spec you will need.

For the rechargeable design you do not need the CR2032 Battery holders. For the CR2032 design you do not need the liPo, charger, connectors, or switch.

Item	Quantity	Link	Notes:
M5x50mm	1	X	
12mm od x 40mm 1.2mm diameter spring	1	X	A length of 40mm is recommended. Longer springs will increase the force upon the motor
M5 Lock Nut	1	X	Not necessary, only for increased durability
Motor 12V 30RPM	1	X	It is Very important that you purchase a 12V 30rpm motor. Others will not be strong enough. 6v 15rpm and 3v 7.5rpm motors are not equivalent substitutions.
CR2032 Battery Holder	2	X	
160mAh 3.7v LiPo	1	X	It is possible to fit a 260mAh, however it will be a very tight fit
Battery Charger	1	X	Any other 1s charger will work, you will just need to add a male JST connector to it
Connectors JST	2	X	I strongly recommend against buying pre crimped connectors and soldering too them. It will take a large amount of space
Crimper JST	1	X	
On/Off Switch	1	X	
M2x10mm self-tapping screw	3	X	
M2.5x3mm Set Screw	1	X	
Wire			Any 26-28awg wire
Hot Glue			For securing the solder connections

1. Print all parts in pla+ except the spoon must be printed in TPU 95A. **IT IS HIGHLY RECOMMENDED THAT YOU USE TPU SPOONS.** Do not print any other components in TPU, it will cause issues. Minimum of 1.2mm walls, 2mm top layer, 1.2mm bottom layer, and 15% infill. At maximum 0.3mm layer height. It is recommended that you use support for the screw hole on the fuse. The timed design will need support in the cam cavity. The DS67 bottom can be printed vertically opposite of what is shown in the photo below without support. However, if your printer struggles to bridge you can also print it as shown in the picture below with support. Make sure you do not have supports on the inside they will be impossible to remove. The smaller RP body must be printed upside down, as shown below, with support. Like the 67 make sure there are no supports in the bottom chamber you will not be able to remove them. The RP body is a very difficult print.



2. Grind the end of the fuse screw (m5x50mm) to a bevel as shown in the image below. The screw needs to stick out ~2mm like the image shows. Do not make it into a point, it needs to be large and rounded.



3. Screw the latch guide onto the m5 screw. One side has a beveled end that must face away from the screw head. It may be necessary to sand the latch to fit the hole. It is important that the latch is not too loose or tight, but as close to a perfect fit as possible. I will discuss this further in the included video. If necessary, the diameter of the latch can be increased or decreased in your slicer.



4. Secure the screw and spring in the fuse with the spring retainer.



5. The flexible spoons will yield dramatically better results over normal pla+. The spoon can be secured by the m3x30mm screw. The screw will be used to adjust the tension of the spoon. In order to prime the fuse, the m5 screw needs to be pushed up and towards the rear as shown in the image below. The spoon will then be lowered in order to hold the screw from dropping. As stated before, you can tighten or loosen the spoon screw to adjust the tension. If necessary, the width of the spoon can be increased or decreased in your slicer.



The screw is not supposed to latch on the top and should free fall unless something is blocking it. There is no spring on the spoon, that is counter intuitive to the design. The spoon is blocking the screw from falling into the hole. The fuse will trigger when the spoon moves away from the latch. This can be accomplished via a hard impact or simply moving the spoon.