



These are the parts used in the video (or a compatible substitute). Feel free to email with questions, and let me know if anything needs updating. If you purchase from these links I may receive a small commission from the sale. This will not impact your price. Alternatively, please consider supporting Fungaia by visiting our shop or making a donation.

**Annotated Parts List** 

# Peristaltic Pump

#### Pump head

This is the most important part of the whole system, so it's worth getting a good pump head. Whatever you choose, make sure it allows for quick tubing changes. (Looking for a big ass pump? Here's one to consider.)

#### Stepper motors

It's easiest to get a pump head with the motor included.

Nema 17

Nema 23

## Stepper motor driver

Lots of options out there. I like the big clunky ones for easy install. Suitable for both the Nema 17 and 23. I've found other cheaper, more compact drivers like the A4988 or the TMC2208 to be challenging to work with.

#### PWM signal generator

Also lots of options out there. The linked unit has a more usable interface. These are cheaper and work fine.

# 3/16" silicone tubing

## 24V DC power supply

If you're making a 7-series battery pack, you'll need this one instead to charge the pack at 29.4V.

## DC power jack

5.5mm x 2.1mm is the standard size for most power supplies. You can also get them with leads already soldered on.

## Toggle switches

Basic toggle - works for most things.

On-On toggle - two-position toggle for switching pump modes. These can work as on-off toggles as well, and I used them this way in the video so all of my switches matched.

## Complete Peristaltic Pump Options

DIY is more fun, but here are some decent options if you're just trying to buy the thing and be done with it.

Kamoer DIPump-KK300 INTLLAB BT100

# **Battery Pack Parts**

## Lithium-Ion cells

There are a lot of cheap, dangerous and ineffective battery knockoffs out there. I highly recommend purchasing from an authorized dealer. I have used this company many times and quite like them.

## 7s BMS with balance charging

Nickel strip

Battery pack heat shrink

29.4V DC Power supply

Injector System

Luer Lock extender

Push-button trigger

3.5mm audio cable (mono)

3.5mm audio jack

**Latch** 

I.V. Bags & Accessories

Sterile medical I.V. bags

Custom-order bulk liquid culture

Luer Lock adapters

3/16" barb to male luer lock

3/16" barb to female luer lock

Male luer lock caps

Female luer lock caps

3/16" barb tee (for manual pump)

Custom inline filters

Manual transfer pump

Misc. Electrical Supplies

Soldering iron

Solder

18q electrical wire

I prefer silicone-coated, stranded, tinned copper wire for projects like this. 18g is a good all-around size for most things.

Heat shrink

Heat gun

Hot glue gun

Wire strippers

<u>Multimeter</u>

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