Sterile Flow Hood

With the constraints on material resources comes the question of laboratory equipment. There are a few minimal tools that are necessary for mycological work. For example, sterile work asks for some means to provide a flow of sterile air. Ideally, a professional lab bench, a so-called sterile or laminar flow hood, is used. They are the gold standard in laboratories throughout the world and across disciplines such as chemistry and biology. However, with hefty prices coming in at 3 to 5000 Swiss franks – this was off the bat. Forums such as shroomery.org or several mycological communities on Reddit suggest using a still air box (SAB). Essentially a transparent plastic tub with cutouts for the hands of the user to reach in. The SAB is thoroughly cleaned with alcohol, loaded up with all necessary tools and equipment and then covered with the lid. I used one of these contraptions in my early steps into the field in 2018. It is far from ideal in both practicality and efficacy.

As I have done throughout my studies, I just decided to build my own sterile flow hood. It was a project I had been dreaming of ever since I saw pictures of the devices in Paul Stamets' books. Now was the time for it. I scoured the web for a few promising designs and selected three favourites. I sketched out my own, improved design based on the three sources and hunted for the parts online. One of the requirements for my design was it being built entirely of easily source-able, affordable parts – preferably found at any hardware store. I ordered the parts, and off to the workshop, I went.