

## Fabrication of a solid object made of mycelium

This protocol guides through the process of fabricating a 3 dimensional object starting from healthy growing culture/bag.

**Materials:** Negative mold, substrate colonised with mycelium, kitchen film, gloves, rubbing alcohol, spray bottle

The process is divided in three steps. First, it is required to build a negative mold to be filled with material colonised by the mycelium of the chosen mushroom. Once wrapped in kitchen film, it has to be kept in a favourable environment for that type of mushroom to thrive. Then the growth has to be monitored and assisted, until the object has reached the desired colonisation status. Eventually the object has to be completely dried.

### Part 1

- Cultivate enough mycelium for the purposes, or buy it ([www.pilzmaennchen.de](http://www.pilzmaennchen.de))  
We used Reishi for this session (*Ganoderma lucidum*)
- Build a negative mold and wrap the surfaces with kitchen wrap
- Wear gloves, and clean everything with alcohol; the working surface, tools and mold.  
HINT: using a spray bottle with rubbing alcohol makes cleaning the wrapped mold much easier
- Break down the mycelium in bag/culture in tiny pieces with hands; the smaller, the better
- Mix additional custom substrate to change the mechanical characteristics of the finished material and to give mycelium fresh energy
- Fill the mold with the substrate; don't press the material to much, so that the mushroom has room to breath and grow
- Wrap the filled mold in kitchen film and puncture it to allow oxygen flow
- Put the mold in a favourable environment for the mushroom. Check these variables: temperature, humidity and light conditions



