

# **Building Stuff with Clojure & 3D Printing**





## Repairability Score

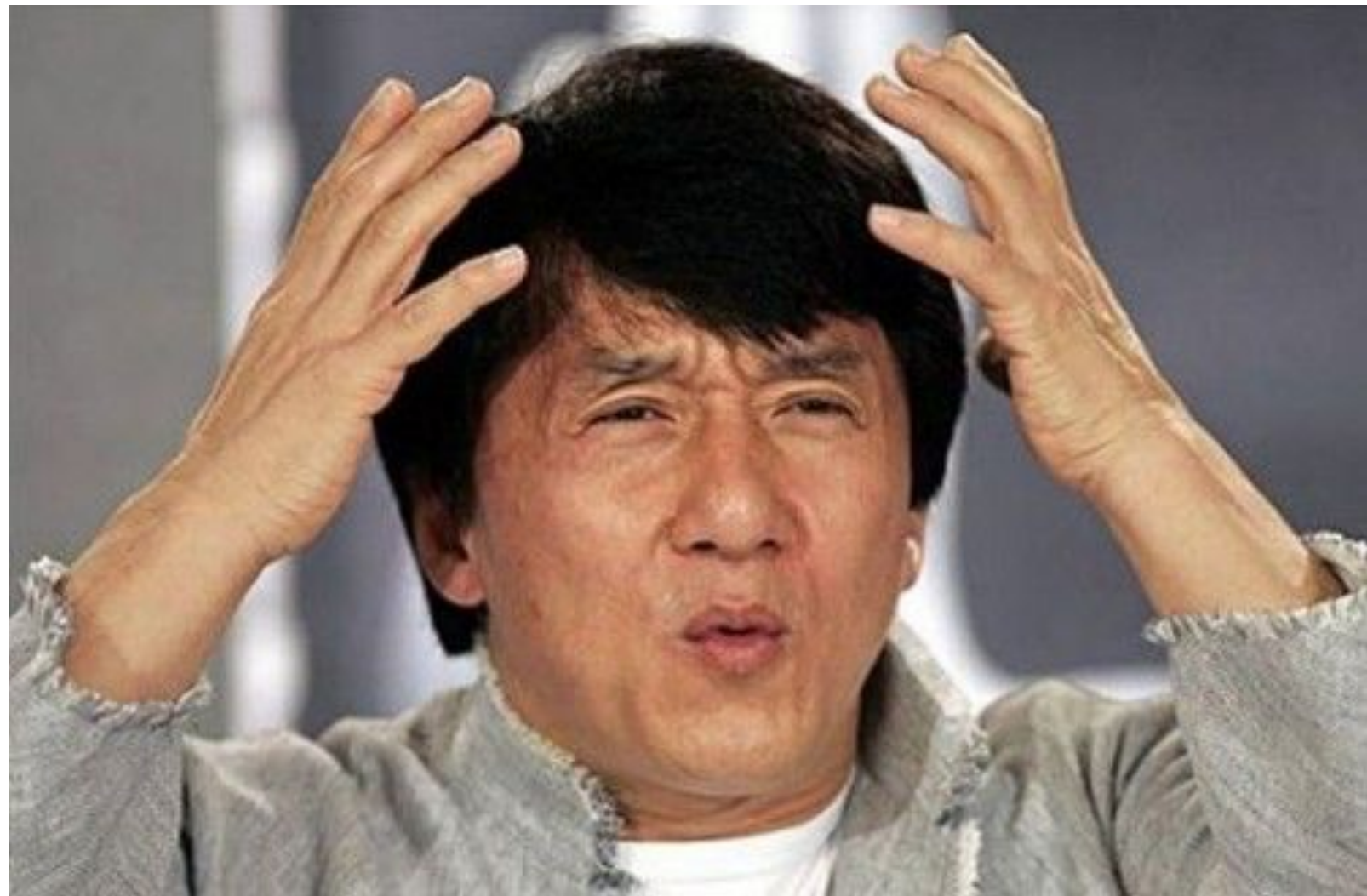


Repairability 1 out of 10  
(10 is easiest to repair)











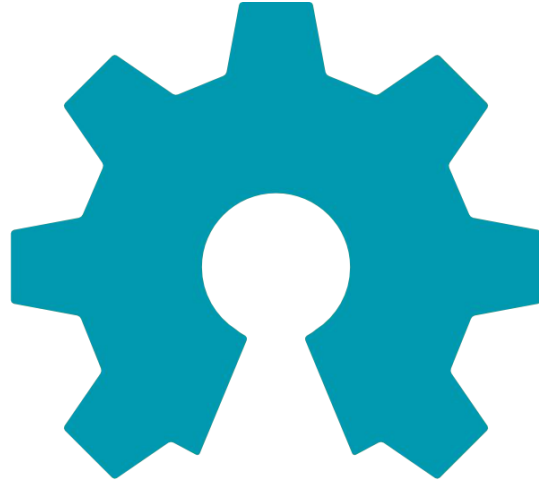












open source  
hardware



**why Clojure?**

**run anywhere, anyhow**

**collaboration**



**composability**

**functional modeling**





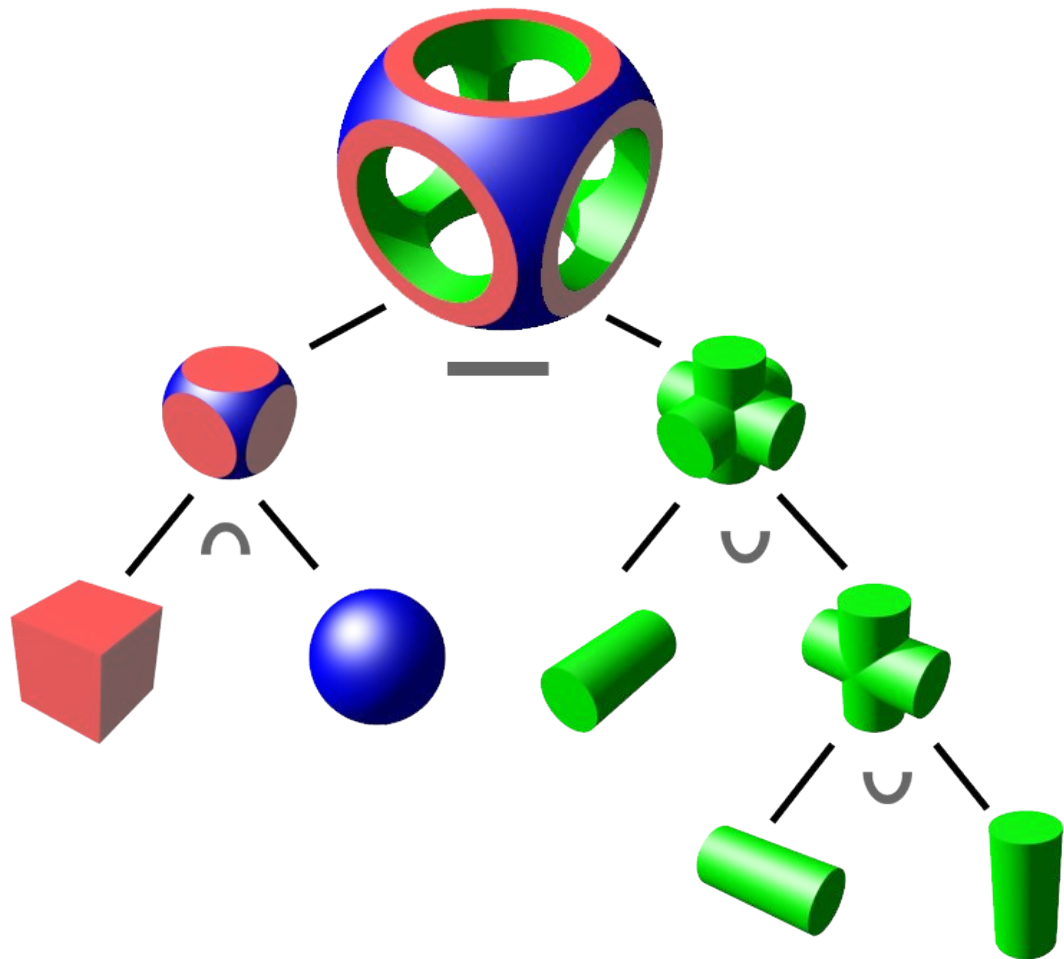
# Functional 3D Modeling

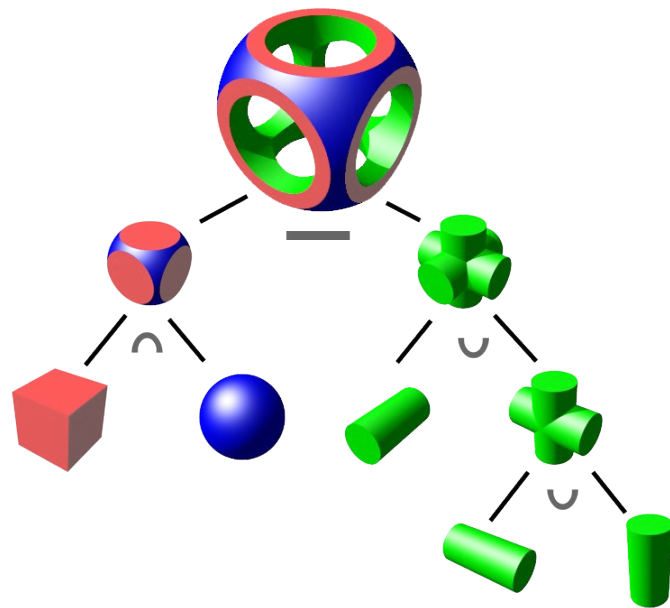
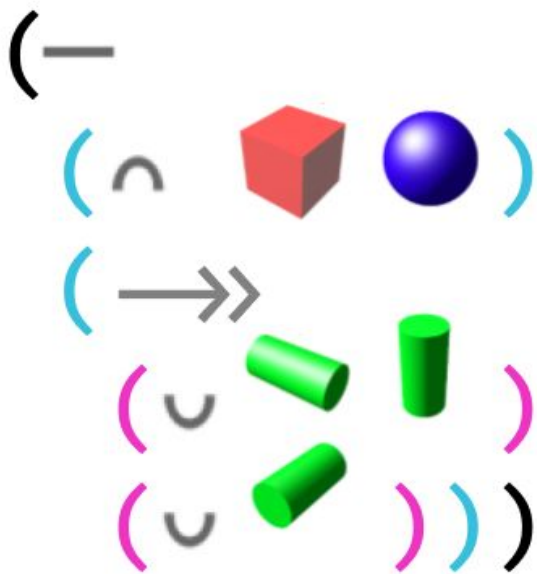
Polymesh

# **Constructive Solid Geometry**

Bezier curves/patches

NURBS surfaces

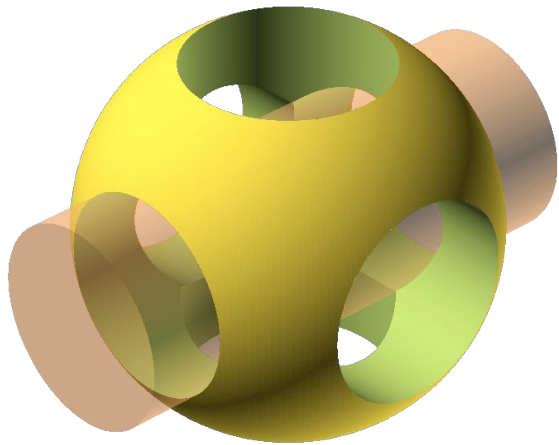


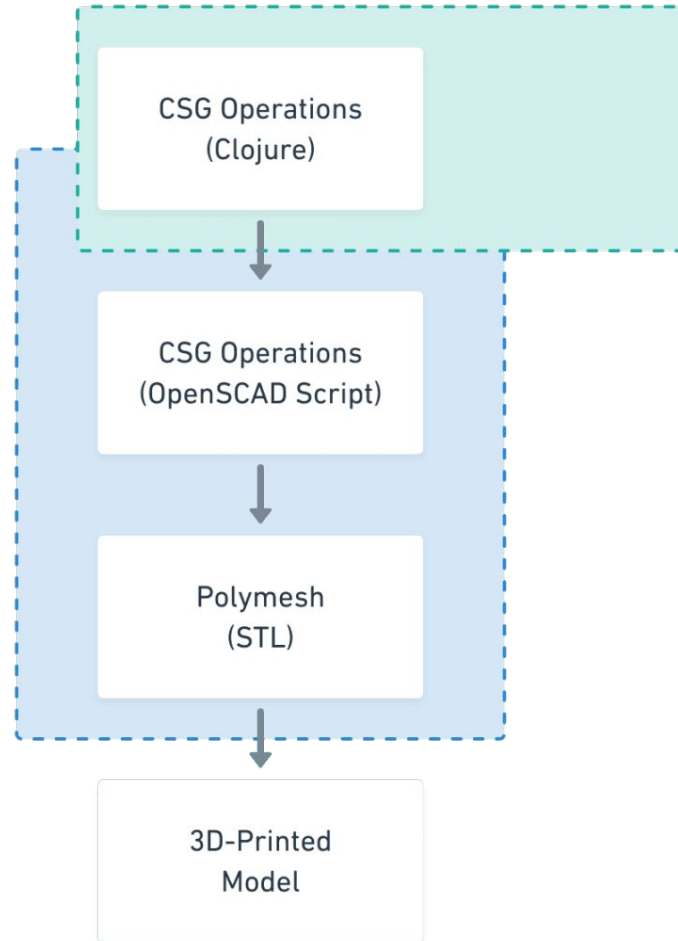




**The stack**

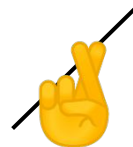








**Live demo**



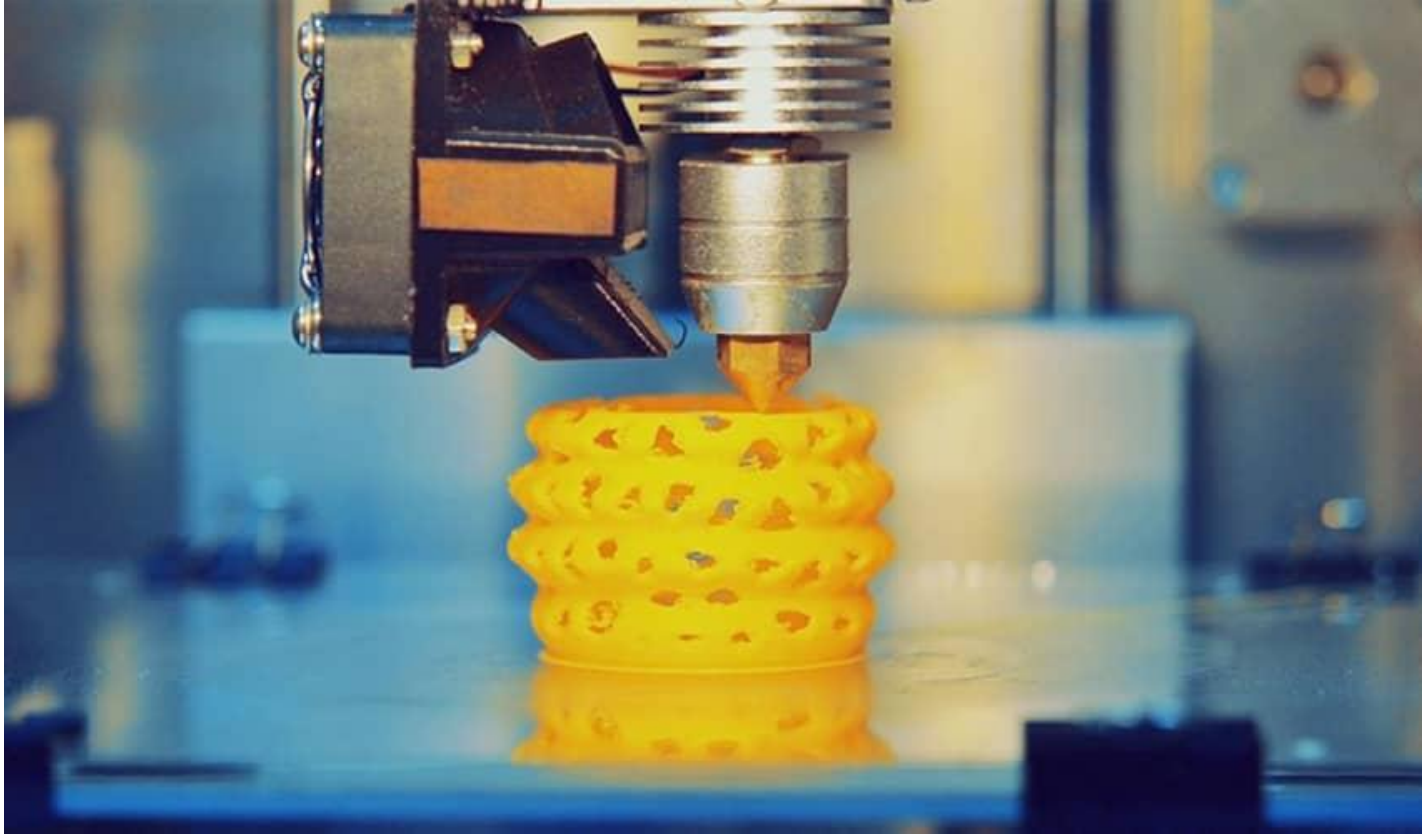




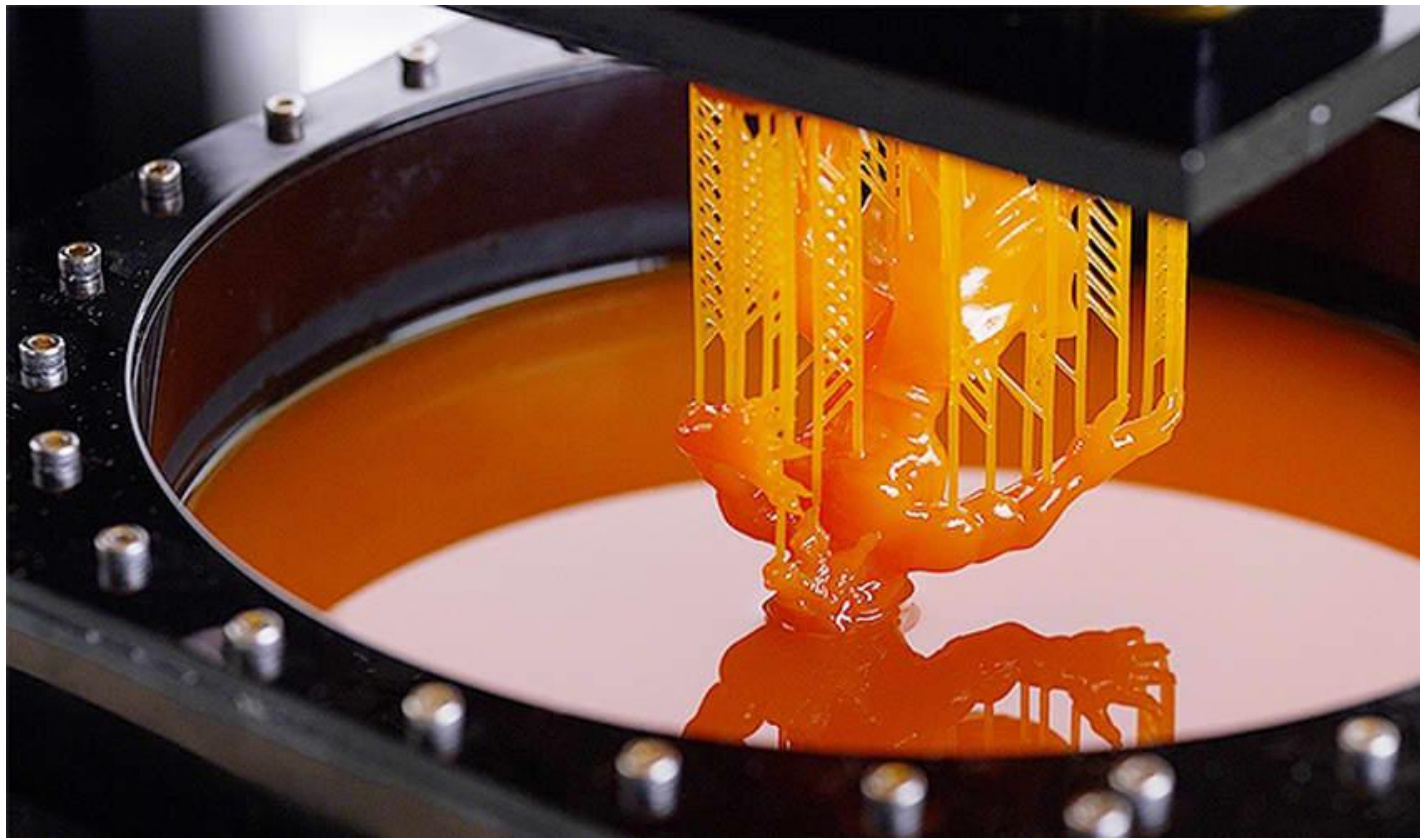
# 3D Printing



**FDM**

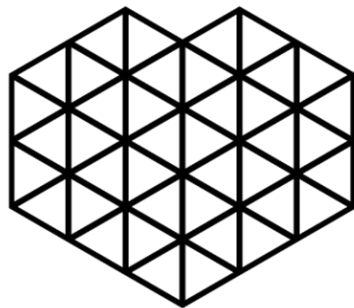


SLA



# SLS

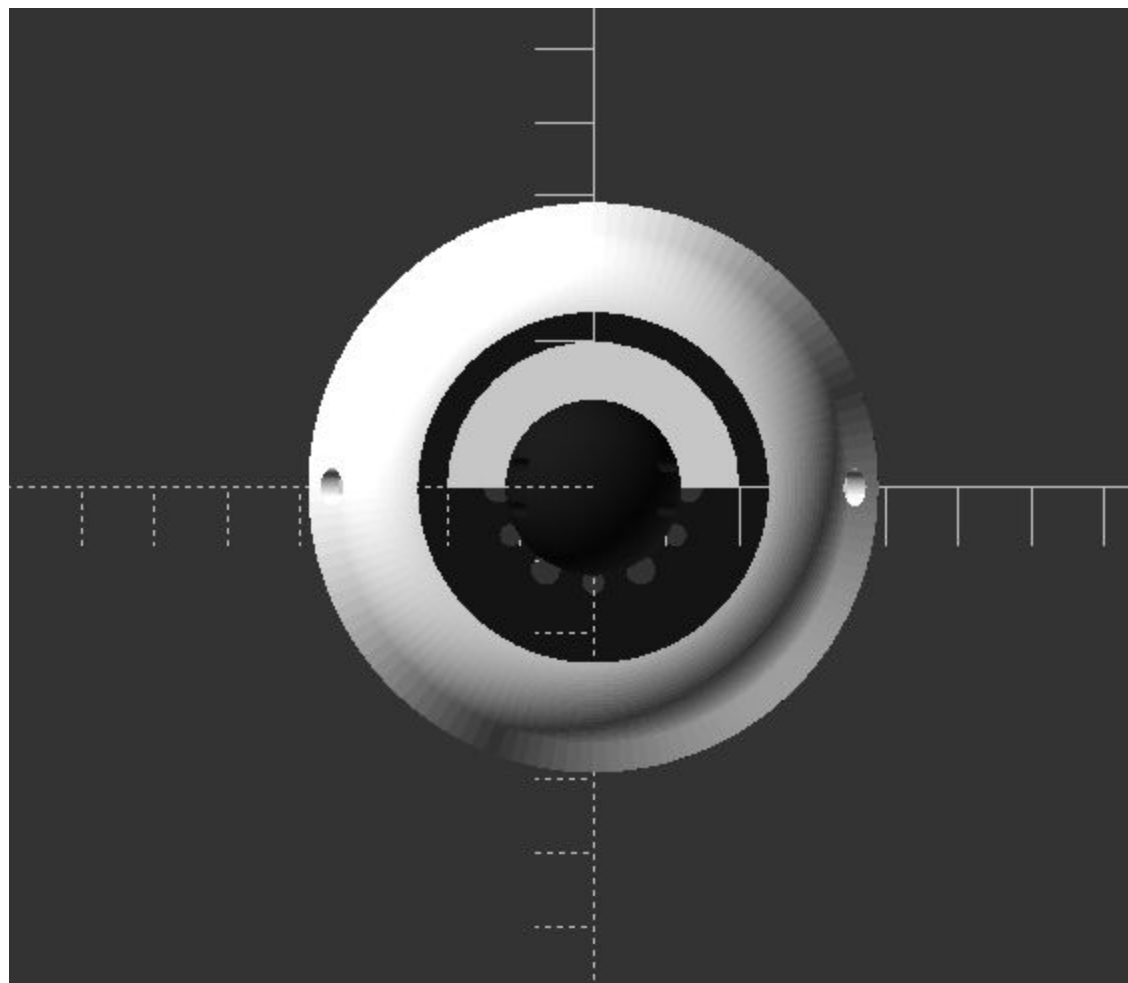


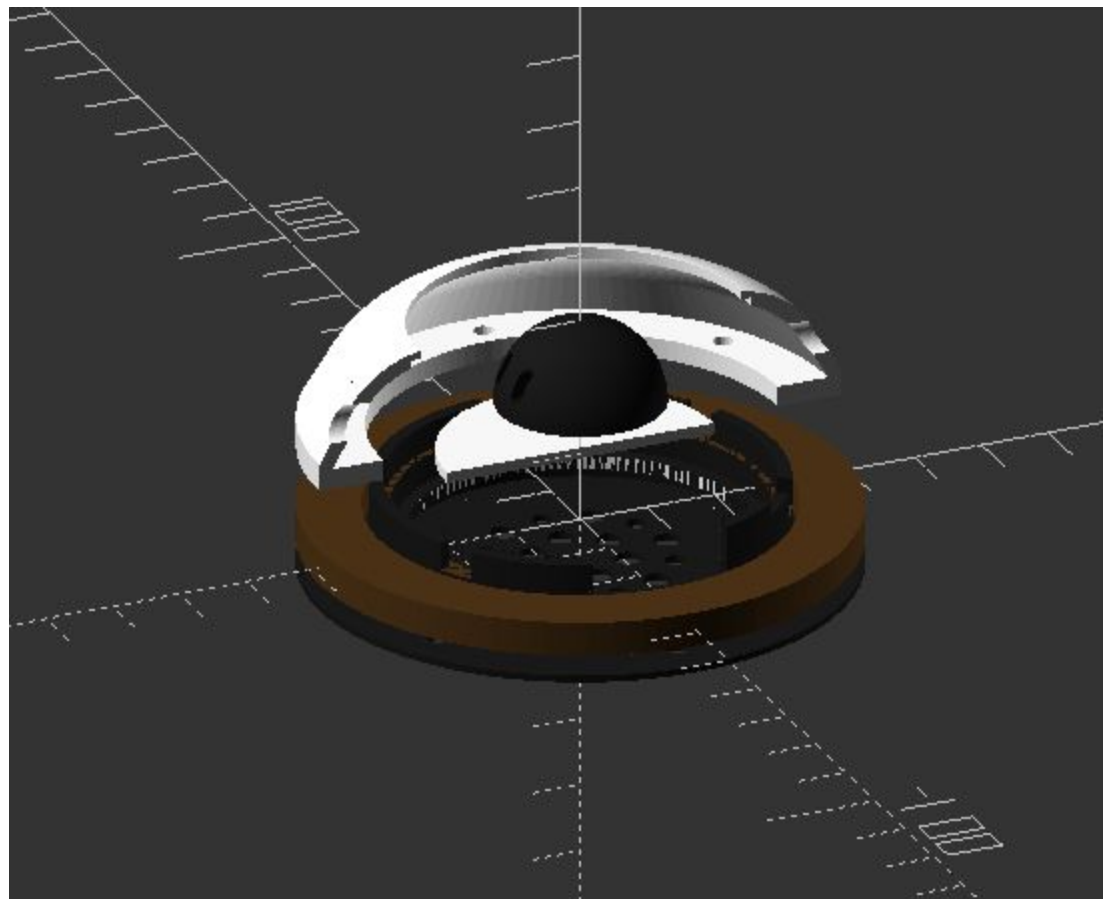


**3D HUBS**

**HP.1**









**People**

# Thank you

[github.com/altitude](https://github.com/altitude)  
[twitter.com/superzamp](https://twitter.com/superzamp)



# References

## Solid Modeling

<https://fr.slideshare.net/michaeljamesheron/03-graphical-representation>

[https://en.wikipedia.org/wiki/Solid\\_modeling](https://en.wikipedia.org/wiki/Solid_modeling)

[https://en.wikipedia.org/wiki/Constructive\\_solid\\_geometry](https://en.wikipedia.org/wiki/Constructive_solid_geometry)

<https://transmagic.com/six-reasons-watertight-models-matter/>

## OpenSCAD

[https://en.wikibooks.org/wiki/OpenSCAD\\_User\\_Manual](https://en.wikibooks.org/wiki/OpenSCAD_User_Manual)



Do try this at home!

<https://github.com/altitude/scad-clj-demo>