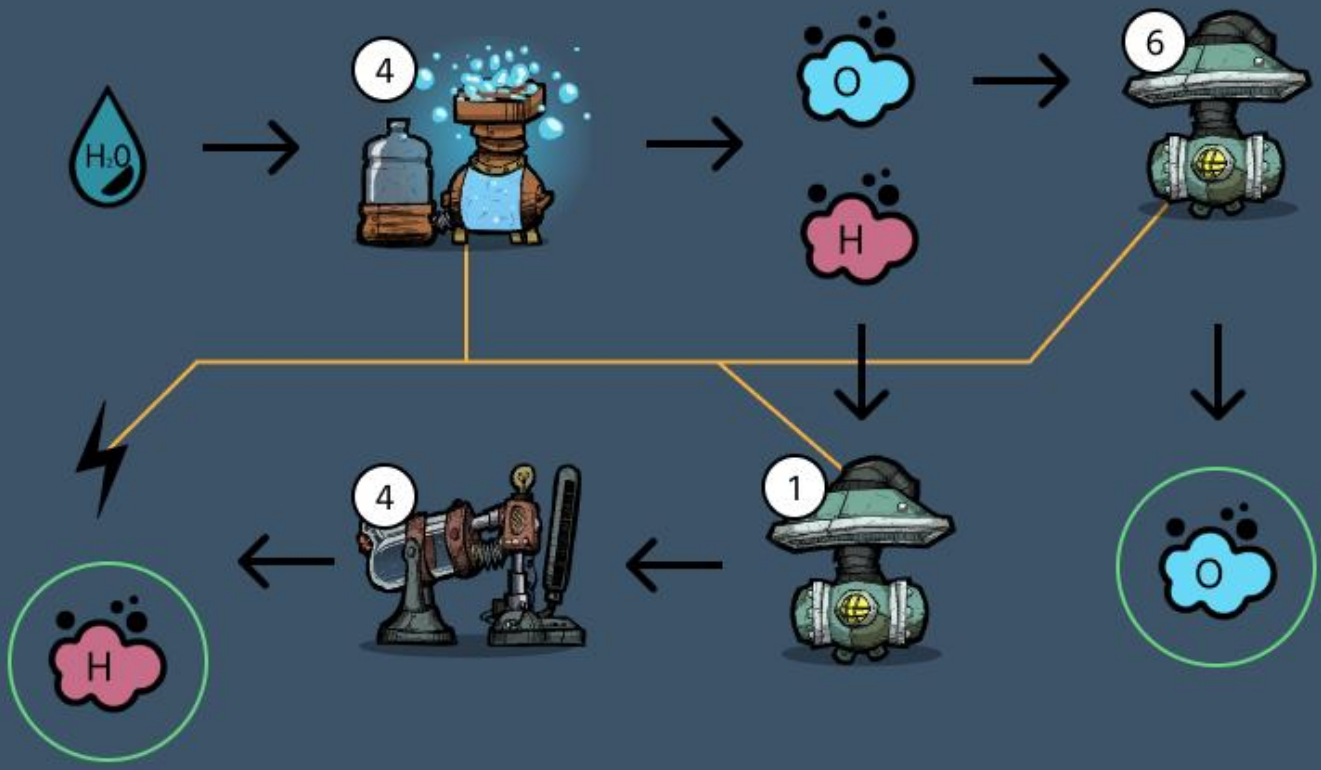
# SELF POWERED OXYGEN MACHINE

This machine is used for producing **oxygen** and **hydrogen**. It is able to power itself after being started, but requires clean **water** as input.

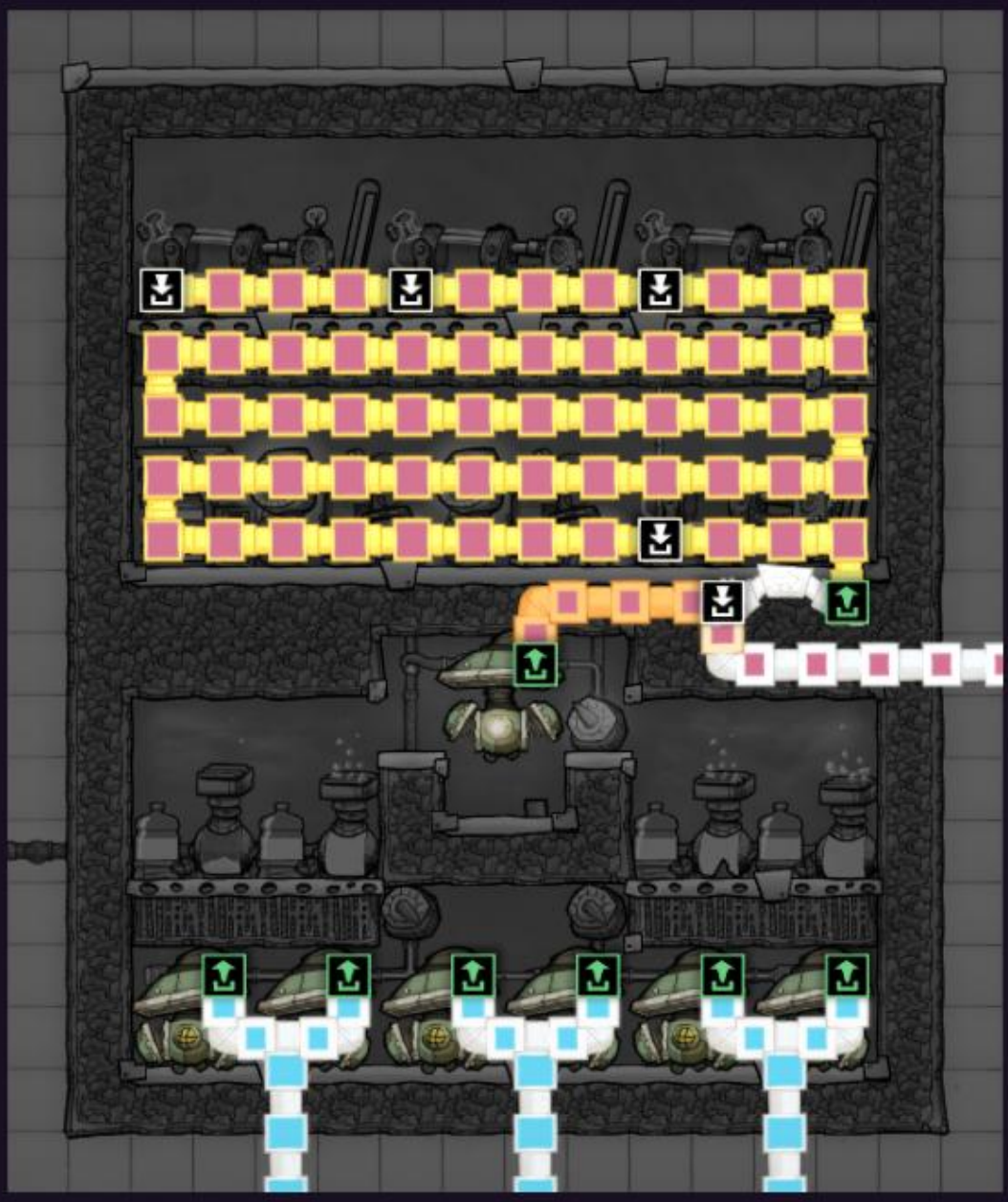



Materials should handle a small amount of heat, **gold amalgam** works well. The hydrogen should be routed through radiant pipes over the power equipment for cooling before it is consumed. The **oxygen** output will be a bit warm (~70°C), cool it afterwards or add a cooling loop to the bottom section if necessary.

# MAIN OVERLAY

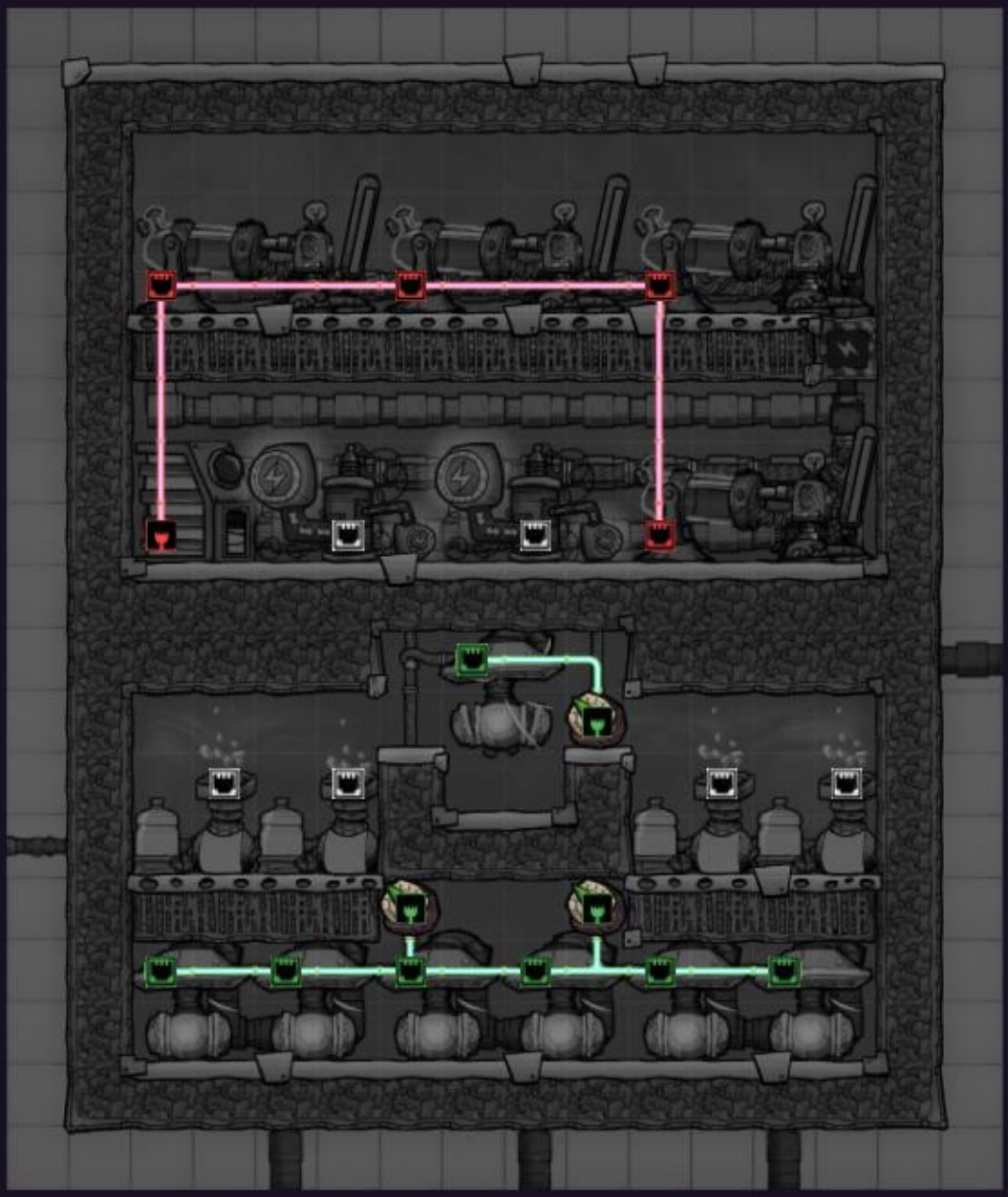
- Build the two edges in the “U” last so duplicants can move easier
- Leave the top section open until it is running

# GAS OVERLAY

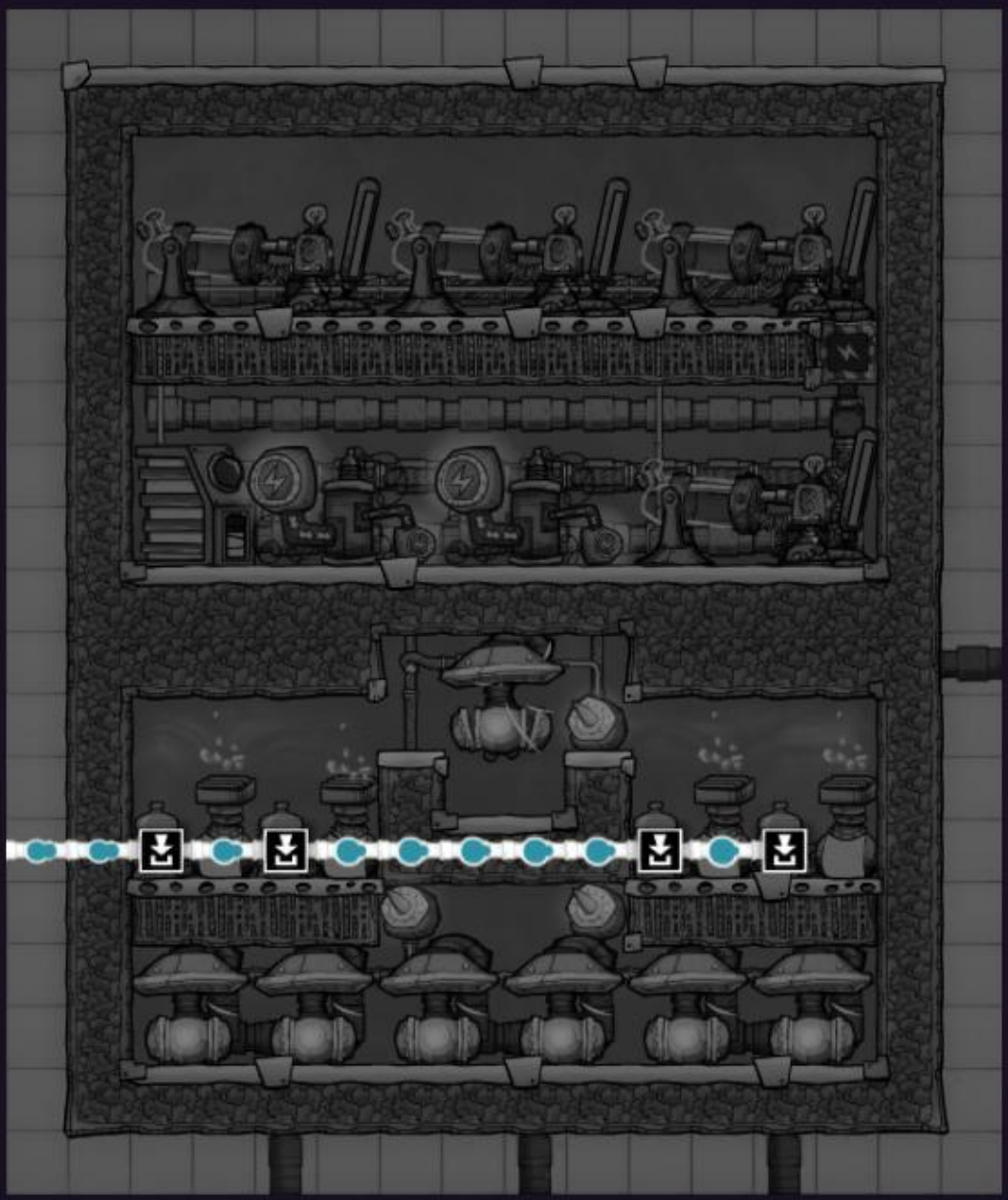


# AUTOMATION OVERLAY

- Top Sensor: **Above 250g**
- Bottom Sensors: **Above 450g**
- Battery: 60/90 (unimportant)

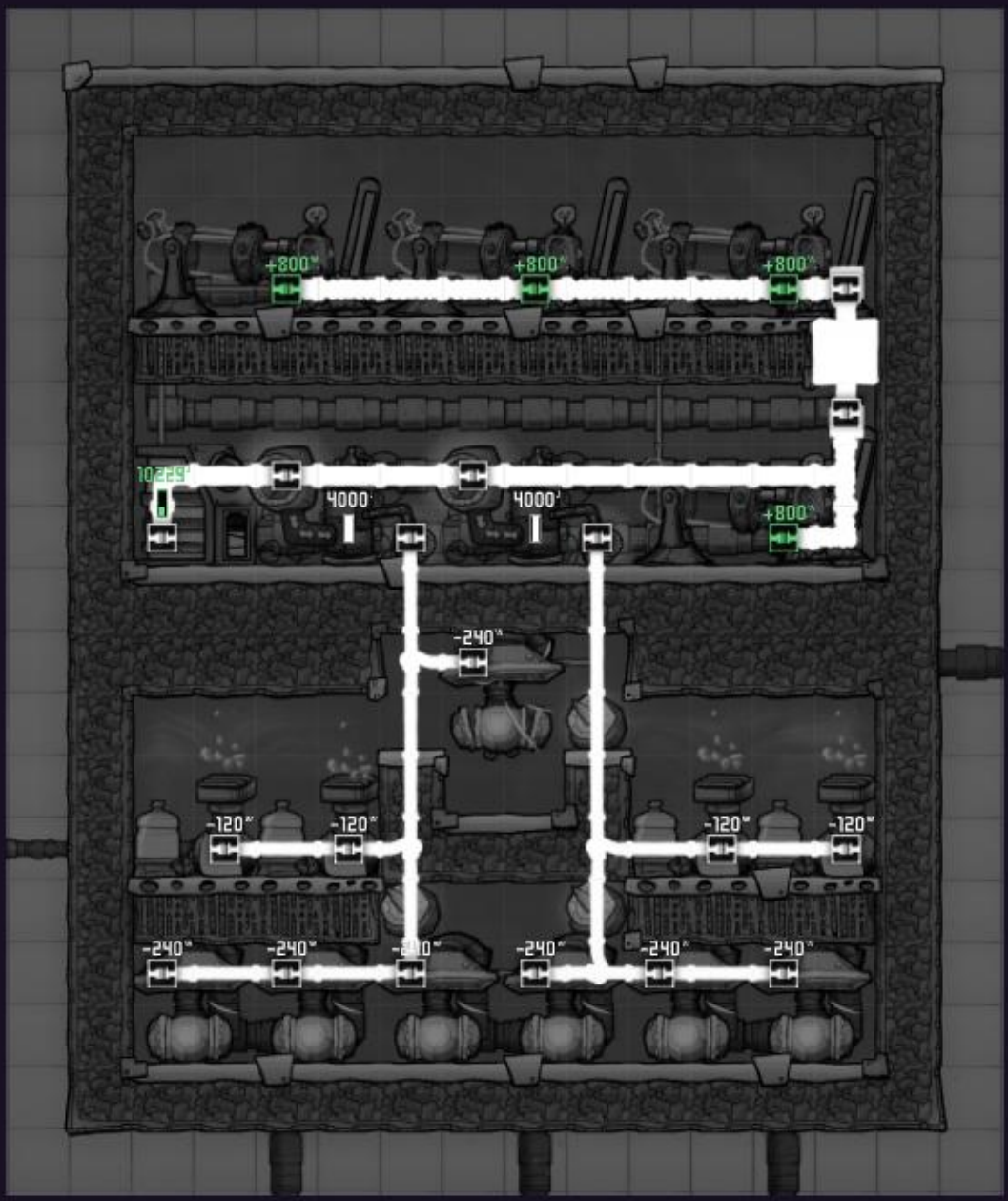


# LIQUID OVERLAY



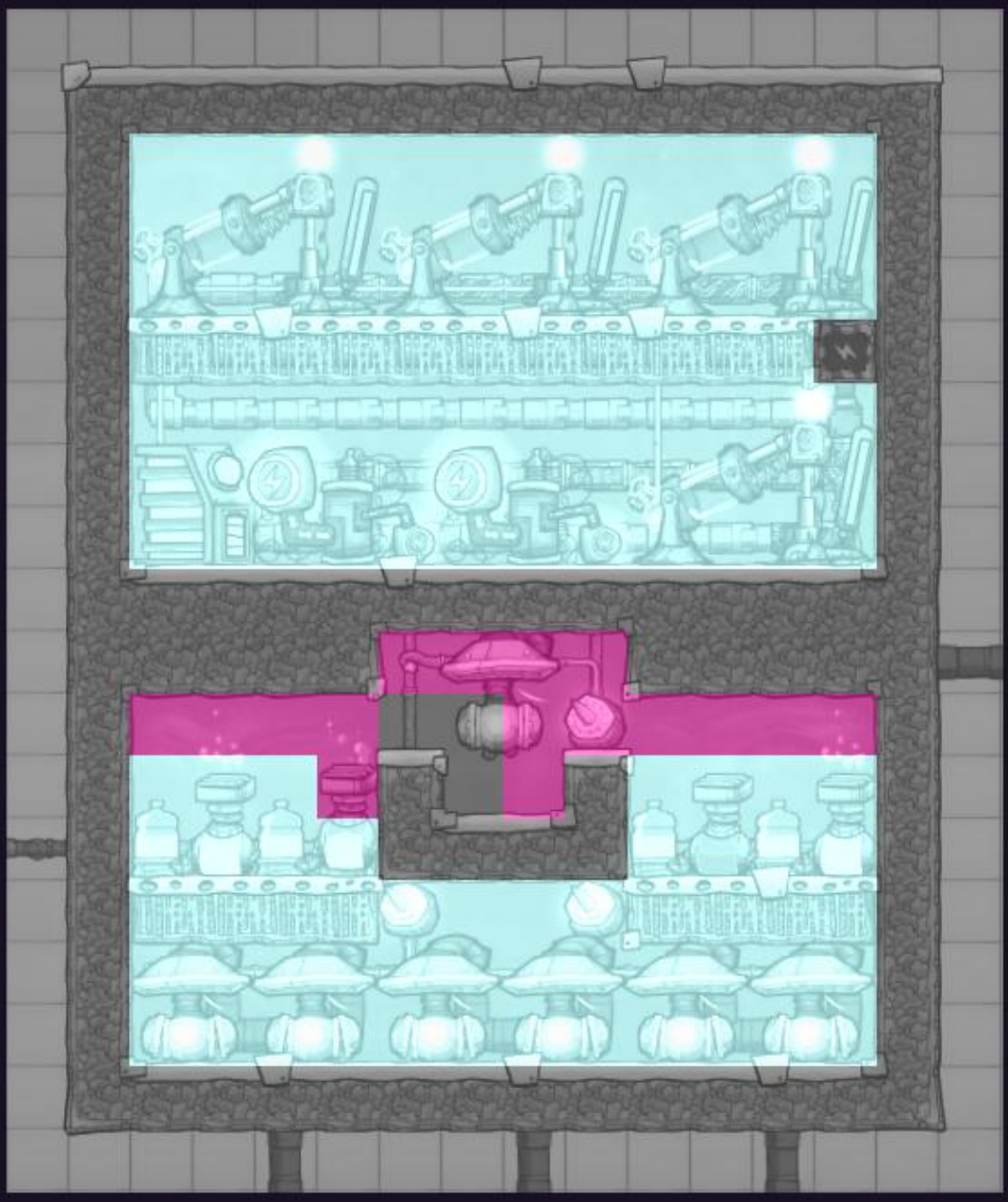
# POWER OVERLAY

- Kickstart by connecting power wire to the top section. Regular wire is fine, let it overload, it can be removed quickly.



# MATERIALS OVERLAY

- The gas will settle down like this. The hydrogen is lighter and floats to the top. The oxygen is heavier and sinks to the bottom. This means we don't need a gas filter to separate them!
- (The gas in the top section is unimportant)



# SOME NUMBERS

- This produces a lot of oxygen! (about 3kg/s)
- Each electrolyzer produces enough hydrogen for one generator.
- Each generator produces enough power (800w) for the elctrolyzer and the two pumps to move the gas around (600w).
- The left over hydrogen needs to be sent somewhere else in your base (like more generators!), otherwise the system will back up.

OXYGEN NOT INCLUDED

Original build by: **Rodriguez**
Video guide: **Francis John @**
This guide by: **kyldvs**