The open source hardware movement has long championed the importance of the right to repair, fully own the technology you buy, and be able to remix and reproduce gadgets, just like you can with music. And so, during this challenging time, open hardware is providing some answers to some of the problems created by the coronavirus pandemic.

An overview of what's happening

For one, hardware developers around the world are working to resolve supply chain weaknesses using open source, the same philosophy that has driven a proliferation of new software technologies over the last 30 years. The hardware movement's past successes include the RepRap Project, Open Source Ecology, and Open Source Beehives, proving this can be done.

There has been increasing interest in creators using 3D printing and other technologies to create replacement parts for and manufacturing of safety equipment on demand. For example, the Polytechnic University lab in Hong Kong 3D printed face shields for hospital workers. And Italian startup Isinnova partnered with the FabLab in Milan to 3D-print replacement valves for reanimation devices in hard-hit Northern Italy. Companies are also releasing designs to adapt our physical interactions, like this 3D printed hands-free door opener from Materialise. These examples of replacing parts and solving problems are an excellent start and appear to be saving lives.