# The Open Hardware Definition

Open Source Hardware (OSHW) Statement of Principles 1.0

Open source hardware is hardware whose design is made publicly available so that anyone can study, modify, distribute, make, and sell the design or hardware based on that design. The hardware's source, the design from which it is made, is available in the preferred format for making modifications to it. Ideally, open source hardware uses readily-available components and materials, standard processes, open infrastructure, unrestricted content, and open-source design tools to maximize the ability of individuals to make and use hardware. Open source hardware gives people the freedom to control their technology while sharing knowledge and encouraging commerce through the open exchange of designs.

### Open Source Hardware (OSHW) Definition 1.0

OSHW Draft Definition 1.0 is based on the Open Source Definition for Open Source Software and draft OSHW definition 0.5. The definition is derived from the Open Source Definition, which was created by Bruce Perens and the Debian developers as the Debian Free Software Guidelines. Videos and Documentation of the Opening Hardware workshop which kicked off the below definition are available here. Please join the conversation about the definition here

# Introduction

Open Source Hardware (OSHW) is a term for tangible artifacts -- machines, devices, or other physical things -- whose design has been released to the public in such a way that anyone can make, modify, distribute, and use those things. This definition is intended to help provide guidelines for the development and evaluation of licenses for Open Source Hardware.

Hardware is different from software in that physical resources must always be committed for the creation of physical goods. Accordingly, persons or companies producing items ("products") under an OSHW license have an obligation to make it clear that such products are not manufactured, sold, warrantied, or otherwise sanctioned by the original designer and also not to make use of any trademarks owned by the original designer.

The distribution terms of Open Source Hardware must comply with the following criteria:

### 1. Documentation

The hardware must be released with documentation including design files, and must allow modification and distribution of the design files. Where documentation is not furnished with the physical product, there must be a well-publicized means of obtaining this documentation for no more than a reasonable reproduction cost, preferably downloading via the Internet without charge. The documentation must include design files in the preferred format for making changes, for example the native file format of a CAD program. Deliberately obfuscated design files are not allowed. Intermediate forms analogous to compiled computer code -- such as printer-ready copper artwork from a CAD program -- are not allowed as substitutes. The (cc) BY license may require that the design files are provided in fully-documented, open format(s).

The documentation for the hardware must clearly specify what portion of the design, if not all, is being released under the license.

## 3. Necessary Software

2. Scope

If the licensed design requires software, embedded or otherwise, to operate properly and fulfill its essential functions, then the license may require that one of the following conditions are

- a) The interfaces are sufficiently documented such that it could reasonably be considered straightforward to write open source software that allows the device to operate properly and fulfill its essential functions. For example, this may include the use of detailed signal timing diagrams or pseudocode to clearly illustrate the interface in operation.
- b) The necessary software is released under an OSI-approved open source license.

### 4. Derived Works

The license shall allow modifications and derived works, and shall allow them to be distributed under the same terms as the license of the original work. The license shall allow for the manufacture, sale, distribution, and use of products created from the design files, the design files themselves, and derivatives thereof.

#### 5. Free redistribution

The license shall not restrict any party from selling or giving away the project documentation. The license shall not require a royalty or other fee for such sale. The license shall not require any royalty or fee related to the sale of derived works.

#### 6. Attribution

The license may require derived documents, and copyright notices associated with devices, to provide attribution to the licensors when distributing design files, manufactured products, and/or derivatives thereof. The license may require that this information be accessible to the end-user using the device normally, but shall not specify a specific format of display. The license may require derived works to carry a different name or version number from the original design.

> AND WE'D LIKE TO DISCUSS IT MORE

WITH YOU DURING

THE OPEN

KNOWLEDGE

FESTIVAL 2012

INTRODUCE

YOURSELF ON OUR

MAILING LIST AND LET'S START COLLABORATING! THAT WILL TAKE

SEPTEMBER 2012!

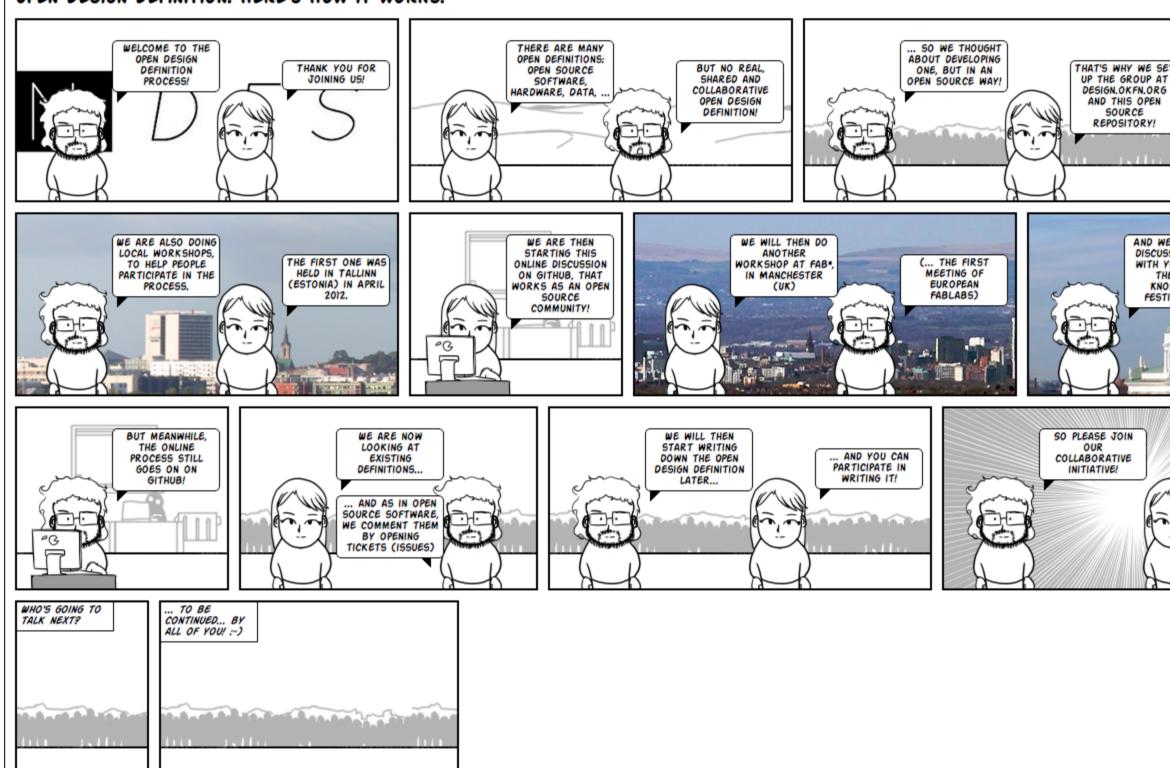
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# 7. No Discrimination Against Persons or Groups

The license must not discriminate against any person or group of persons.

Source: http://freedomdefined.org/OSHW

# OPEN DESIGN DEFINITION: HERE'S HOW IT WORKS!





(cc) BY

Source: https://github.com/OpenDesign-WorkingGroup/Open-Design-Definition

# **OPEN DESIGN DEFINITION** http://design.okfn.org/

An exhibition about Open Design should start with a definition of what Open Design is or is not, but unfortunately such a comprehensive definition has yet to be finalised. Moreover, in its current state the linguistics of the word "design" include many potential meanings and applications. The Open Design working group at Open Knowledge Foundation and started with the help of Aalto Media Factory, has started the process of developing a formal Open Design Definition.

The group want to develop this missing definition through inclusive and collaborative methods rooted in public discussion, workshopping and sharing different understandings of this field to ensure such a definition will adequately cover all the potential meanings and applications of design. Moreover, the group want the product of this collaboration to be developed and "owned" by a wide community of people interested in Open Design, not the result of a closed-door discussion. Therefore the definition will be developed using the methodologies of the Open Source movement by releasing early and releasing often all the information, ideas and tools we use together. Meanwhile, we could have a look at the Open Hardware Definition, since it is closely related to design intended as the production of physical artifacts.



