

## **[New Section on Handibot Website in the [Open Source Software and Hardware Page](#)] “Open Source” Practices and Licenses**

### Background

Our enthusiasm for open collaboration has been influenced and inspired by a number of open source hardware projects and by the Open Source Hardware OSHW Statement of Principles (1.0) as developed and promoted by the Open Source Hardware Association ([OSHW](#)).

The legal questions relating to how best to promote open hardware as a collaborative development environment and as an alternative to a more closed patent system remain to be resolved. But several phrases from OSHW’s discussion of the best practices for open source hardware licenses seem especially worth noting:

“While licensing is a complex subject, use of licenses is an important way of signaling how others can and should use your work. By explicitly applying an open-source license to your hardware design files and other documentation, you make it clear that others can copy and modify them.”

“Note that copyright (on which most licenses are based) doesn’t apply to hardware itself, only to the design files for it – and, then, only to the elements which constitute “original works of authorship” (in U.S. law) and not the underlying functionality or ideas. Therefore, it’s not entirely clear exactly which legal protections are or aren’t afforded by the use of a copyright-based license for hardware design files – but such licenses are still important as a way of making clear the ways in which you want others to use your designs.”

Thus while an open-source license, particularly for utilitarian hardware like ours, may or may not actually assure the type of openness that we seek, we support and participate in the practice as a way of clarifying our own collaborative intent.

The OSHW “best practices” document further notes:

“There are two main classes of open-source or free-software licenses: copyleft (or viral) licenses which require that derivatives be licensed under the same terms; and permissive licenses, which allow others to make modifications without releasing them as open-source hardware.”

We favor a “permissive” approach because we believe the rationale for open source collaboration is strong enough in itself to become common practice and that it is not necessary to dictate how others should behave or should license their own derivative work. There are, as well, challenging legal issues concerning the applicability of copy-left licenses to hardware as compared to software (see: Katz, Andrew [2012]IFOSS L. Rev., 4[1], pp. 41 - 62).

The concept of “open source”, from its origins in open-source software, is frequently associated with the notion of “free” of cost or financial charge. Others have thoroughly explained why the intended essence of “free”, while sometimes true in terms of cost for software, is more fundamentally related to ideas of openness and availability. And, while we appreciate that many of our growing socio-economic threats may call out for solutions in terms of alternatives to traditional forms of earnings and ownership, with respect to open source hardware and to Handibots in particular, there is no intention in the terminology to suggest a scheme for providing hardware that is free of cost or charge. Real stuff costs real money; at least for the time being. And, we participate in a real economy.

Further, we would like to note that we do not believe participation in OSH should constitute a burden beyond the sharing and collaborating that is based on our own full working designs, definitive models, and production concepts. Specifically, we do not feel obligated to develop alternative documentation, instructions, or technical support for others’ special needs or interests beyond what is central to collaboration on product and application development or is of interest or commercial value to us, or represent an educational opportunity we are able to support.

Our basic belief is that it makes sense to share the amazing power of collaboration in developing ideas, concepts, and products. Whatever might be lost by giving up some closed or proprietary competitive advantage is gained by encouraging and fostering the innovative solutions and then building competitive advantage on quality production and support. Our ongoing work is available on the ShopBot GitHub website (<https://github.com/ShopBotTools>) and we will attempt to keep copies of the most current models, downloads, and documentation here on the Handibot website ([www.handibot.com](http://www.handibot.com)).

### Our Licensing

In case of software we create for Handibot, that software is, or will be, licensed under the Apache License (2.0), a permissive, open-source software license. (Available at: <http://www.apache.org/licenses/>).

For hardware, we have developed a new, open source hardware license for the Handibot project. The rationale for crafting a new license evolved from our feeling that while legally appropriate, other available licenses, because they are oriented to software or to electronic circuits and devices, do not fully evoke the descriptive imagery and full breadth of general physical items such as hardware, tools, appliances, or other objects in the world.

Our Panaka Open Hardware License (0.70; available below) is a permissive license created to facilitate the production, distribution and modification of designs

describing smart power tools, originally produced by ShopBot Tools®. The Panaka OHL is directly inspired by and derived from the [Solderpad Hardware License](#) (itself derived from the Apache Software License, see the above link), and the CERN Open Hardware License ([CERN OHL](#), though differentiated from the CERN OHL by being “permissive”).

The Panaka OHL has a modest “attribution” requirement in order to encourage crediting and recording stages in the evolution of a product design. This means that beyond allowing a user to make free use of the design documents, the license affords two methods for contributing and moving the project forward: 1) by making contributions to the core project, contributions which will be included in subsequent design document releases and for which the contributor will be recognized in the authorship list; or, 2) by making improvements or modifications for which the new inclusions are defined and licensed by the contributor, while providing appropriate references to the original license to the core design as described in the license. The latter method might be the approach of an entity or individual deriving a new product from the Handibot design, for example, creating a design “fork” that goes off in a new product development direction.

Note that we have included a patent section in the license. This section is modeled after a similar section in the [Solderpad License](#), developed by Andrew Katz, in order to broaden the scope and generality of the license and to allow for the inclusion of patents introduced by subsequent collaborators on the Handibot project. ShopBot Tools® currently holds no patents in its smart power tools and to best facilitate the proliferation and improvement of these and similar technologies, currently has no intention to acquire patents in the hardware, but intends to share its design documentation for public and collaborative purposes.

# Panaka Open Hardware License (v0.70)

## Preamble

In the spirit of collaboration in creative and innovative product development, the Panaka (“Pah-nah-kah”) Open Hardware License (Panaka OHL) has been developed by ShopBot Tools® to govern the use, copying, modification and distribution of Design Documents for hardware.

The Panaka OHL is inspired by the [Solderpad Hardware License](#) (itself derived from the [Apache Software License](#)), and the CERN Open Hardware License ([CERN OHL](#), though differentiated from the CERN OHL by being “permissive” in not imposing the use of a similar license on modifications or improvements).

## 1. DEFINITIONS

“License” shall mean this Panaka Open Hardware License.

“Licensor” shall mean the copyright owner or entity authorized by the copyright owner that is granting the License, in this case, ShopBot Tools®.

“Legal Entity” shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, “control” means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

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**APPENDIX:** How to apply the Panaka OHL to your work.

To apply this license to your work, attach the following boilerplate notice, with the fields enclosed by brackets “[ ]” replaced with your own identifying information. (Don’t include the brackets!) The text should be enclosed in the appropriate comment syntax for the file format. We also recommend that a file or class name and description of purpose be included on the same “printed page” as the copyright notice for easier identification within third-party archives.

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