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# Live Electronics Tutorial

**With examples in Pure Data and the ELSE Library**

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**Link:** <https://github.com/porres/Live-Electronics-Tutorial>.

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**Version: 1.0-0 beta-35: Released December 2nd 2020**

- This particular version of the tutorial requires **Pd 0.51-3** or later and depends on **\*\*ELSE 1.0-0 beta 35** (<https://github.com/porres/pd-else/releases/tag/v1.0-beta35>)!
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## About:

This tutorial presents theory and practice of Live Electronics topics without any prerequisite. It's aimed at newbies, dummies, enthusiasts and also experts.

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This is a didactic project developed with Pure Data (or just "Pd", a.k.a. "Pd vanilla" distribution), an open source software developed by Miller Puckette - get it at <http://msp.ucsd.edu/software.html>. Note that the major forks of Pd (Pd-Extended and Purr Data) are incompatible to this tutorial (and the ELSE library). Also Access <http://puredata.info> for other resources on Pd. The official Pd mailing list is found here: <http://lists.puredata.info/listinfo/pdlist>.

Pure Data is adopted in this tutorial amongst other possibilities because its accessibility, friendliness and for being a powerful didactic tool. Nonetheless, this work relies heavily in the ELSE library for Pure Data, also developed by Alexandre Torres Porres, the author of this tutorial.

This project started in 2008 as a textbook for a computer music course. In 2009, the author presented a paper about it in the 3rd International Pure Data Convention. Currently, the work is divided into two volumes and solely presented as example patches that the author uses in his courses/workshops. The plan now is to write a book accompanied by these examples. Originally developed in brazilian portuguese and relying on Pd Extended 0.42-5 for years, this has just been rewritten from scratch in english and ported to rely only in objects from the ELSE external library and the newer Pd Vanilla versions.

This is still in the early drafts from the first translation rounds, so typos and mistakes may exist. There are plans to include more topics and examples in this tutorial, which can furtherly be split into 3 volumes. The developments now depend mostly on the software development of the ELSE library to include more examples. Since the ELSE library is still in an early beta stage of development, some objects may change in functionality, new objects are being developed and others might even be deleted until a final version is out. If so, future updates of this didactic material will reflect these changes.

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## **Downloading and Installing this tutorial:**

This version of the tutorial needs at least Pd 0.51-1! You can look for releases of this tutorial in <https://github.com/porres/Live-Electronics-Tutorial/releases> - where early versions of it are also still present, but it's best just to download this directly via Pd along with the ELSE library, because this tutorial is also provided as part of it (and you need to install the "ELSE" library in order to use this tutorial anyway).

So in Pd just go to the "Help" menu and click on "Find Externals", then just search for 'else' for the latest version (1.0-0beta35 by the time of this release). You can also download ELSE from its GitHub repository <https://github.com/porres/pd-else/> and it'll also contain this tutorial as part of the download. In this combo download, you'll always get compatibility between the tutorial and the ELSE library.

If you download from Pd, look for the 'live-electronics-folder' inside the else folder and move it somewhere else, preferably to ~/Pd/Documents (leave ~/Pd/Documents/externals just for proper external libraries, like the ELSE library). Then you can add the folder's path to Pd via "Preferences => Path", so you can navigate through it in Pd's browser (Help => Browser).