



STEAM
Notebooks and Setup
Hands-on session

2nd STEAM Workshop 11th – 15th October 2021

Emmanuele Ravaioli and Mariusz Wozniak
on behalf of the STEAM team



<https://espace.cern.ch/steam>

11th October 2021

Install third party software

1. Git for windows: <https://github.com/git-for-windows/git/releases/download/v2.33.0.windows.2/Git-2.33.0.2-64-bit.exe>
2. Python: <https://www.python.org/ftp/python/3.8.0/python-3.8.0-amd64.exe>
3. Jupyter Lab: <https://jupyter.org/install>
4. COMSOL 5.3a: <https://www.comsol.ch/product-download>
5. Java JDK: [jdk-8u202-windows-x64.exe https://www.oracle.com/ch-de/java/technologies/javase/javase8-archive-downloads.html#license-lightbox](https://www.oracle.com/ch-de/java/technologies/javase/javase8-archive-downloads.html#license-lightbox)
6. Matlab Runtime Installation: <http://www.mathworks.com/products/compiler/mcr/>
 - a) For LEDET: R2018a (9.4)
 - b) For ProteCCT: R2015b (9.0)
7. Microsoft Excel: <https://www.microsoft.com/en-us/microsoft-365/excel>

Install STEAM software

Tool	Link
BBQ	https://cernbox.cern.ch/index.php/s/6sNmckEUzGwasH2
COSIM	https://cernbox.cern.ch/index.php/s/unOhmQlyMrjQlqx
LEDET	https://cernbox.cern.ch/index.php/s/eh2tlmsxdNKayiz
ProteCCT	https://cernbox.cern.ch/index.php/s/EFRz1KDnixpjqCy
SIGMA input files	https://gitlab.cern.ch/steam/steam-sigma-input
SMIC	https://cernbox.cern.ch/index.php/s/2FITjAeGx15e0DD
Compiled .dll material properties files	https://cernbox.cern.ch/index.php/s/UW0rJzHj8WQgTdk
C++ material property database	https://gitlab.cern.ch/steam/steam-material-library
Matlab material property database	https://gitlab.cern.ch/steam/steam-ledet-material-library
STEAM notebooks	https://gitlab.cern.ch/steam/steam-notebooks

Downloads are password protected. Password will be provided to users who signed STEAM user agreement, available at:

<https://edms.cern.ch/document/2024516>



To start Jupyter notebook and install needed python libraries

- 1) In cmd: `cd folder_path_with_steam_notebooks`
- 2) In cmd, start Jupyter notebook by running: `jupyter-lab`
- 3) Open and run first cell in: `STEAM_notebooks_install_required_packages.ipynb`