

FabLab Chemnitz

Boxes.py

- [About Boxes.py](#)

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Boxes.py is an Open Source box generator written in Python. It features both finished parametrized generators as well as a Python API for writing your own.

Sources of documentation

- <https://www.festi.info/boxes.py/index.html>
- <https://florianfesti.github.io/boxes/html/generators.html>

Souce files for boxes.py

- <https://github.com/florianfesti/boxes>



The images are from <https://www.festi.info/boxes.py>

Documentation steps for inclusion of Boxes.py in MightyScape

Since 02.06.2025 we use a git commit ID in our [requirements.txt](#) and we use the same commit id to compile and include proper `*.inx` files and thumbnails. This way no errors should occur anymore. If we want to upgrade to latest Boxes.py, we need to adjust at 2 places in sync.

```
#clone project - we need to clone it because MightyScape only installs the required module,  
but not all generator scripts  
cd ~/Downloads/  
git clone https://github.com/florianfesti/boxes.git  
cd boxes/  
  
#check out the commit we use in our own requirements.txt to match exactly
```

```
git checkout 116a5e06792d41370de1680535e016bec26a56e4

#enable venv
python3 -m venv env
. env/bin/activate #activate venv
pip3 install -r requirements.txt

#create target dir for inx files from generator script and generate them
mkdir -p ~/Downloads/boxes/inkscape-export/
~/Downloads/boxes/env/bin/python3 scripts/boxes2inkscape ~/Downloads/boxes/inkscape-export/

#create SVG thumbnails from JPG thumbnails to use them in *.inx
for FILE in ~/Downloads/boxes/static/samples/*-thumb.jpg; do WIDTH=$(identify -format "%w"
${FILE}); HEIGHT=$(identify -format "%h" ${FILE}); BASENAME=$(basename -- "$FILE");
BASE_W0="${BASENAME%.*.}"; echo '<?xml version="1.0" encoding="UTF-8" standalone="no"?><svg
width="'$WIDTH'" height="'$HEIGHT'" viewBox="0 0 '$WIDTH' '$HEIGHT'"
xmlns:xlink="http://www.w3.org/1999/xlink" xmlns="http://www.w3.org/2000/svg"
xmlns:svg="http://www.w3.org/2000/svg"><g id="gimage"><image width="'$WIDTH'"
height="'$HEIGHT'" xlink:href="'$BASENAME'" id="image1" /></g></svg>' >
~/Downloads/boxes/static/samples/$BASE_W0.svg; done

#copy final files
cp ~/Downloads/boxes/inkscape-export/*.inx ~/.config/inkscape/extensions/mightyscape-
1.2/extensions/fablabchemnitz/boxes.py/
cp ~/Downloads/boxes/static/samples/*-thumb.jpg ~/.config/inkscape/extensions/mightyscape-
1.2/extensions/fablabchemnitz/boxes.py/
cp ~/Downloads/boxes/static/samples/*-thumb.svg ~/.config/inkscape/extensions/mightyscape-
1.2/extensions/fablabchemnitz/boxes.py/

#adjust some stuff in inx
cd ~/.config/inkscape/extensions/mightyscape-1.2/extensions/fablabchemnitz/
./000_boxes.py.sh
```