Collar.pyw Help File

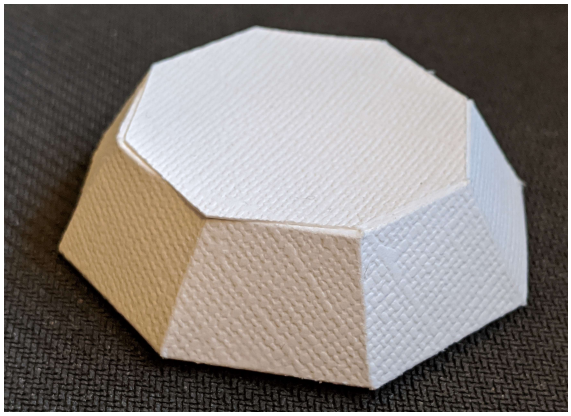
What it does

Can be used alone or with Inkscape or other svg vector program. (Tested only with Inkscape 1 beta)

Collar creates an output svg file that contains a single object, with tabs and scores that has a polygons of specified sizes at the top and bottom. It also contains two polygons that match the size of the top and bottom, and an object that can be used to cut a decorative cover or overlay over the piece once glued.

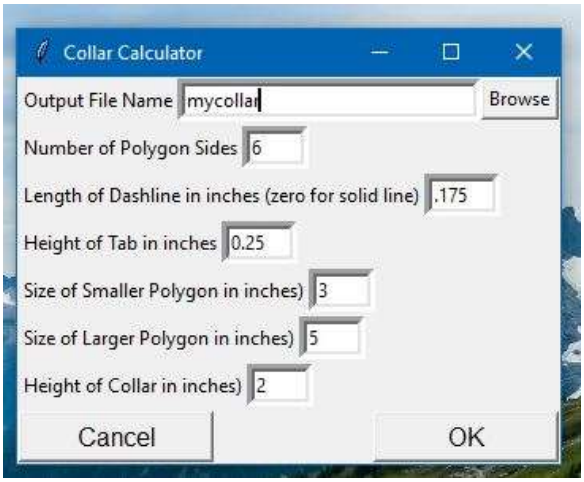
The main piece creates a "collar" shape when glued together. If both polygons are of equal size then the shape will be a column.

Installation instructions are at the end of this document.



Input:

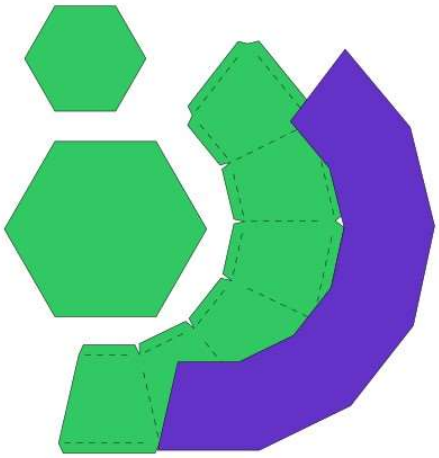
- The output file name
- How many sides on the polygon shape
- The size of the smaller polygon (this is the "top" of the collar)
- The size of the larger (or equally sized) polygon (this is the base of the collar)
- The tab size
- The score cut size (0 will provide a solid line score)
- The height of the finished/constructed/glued piece

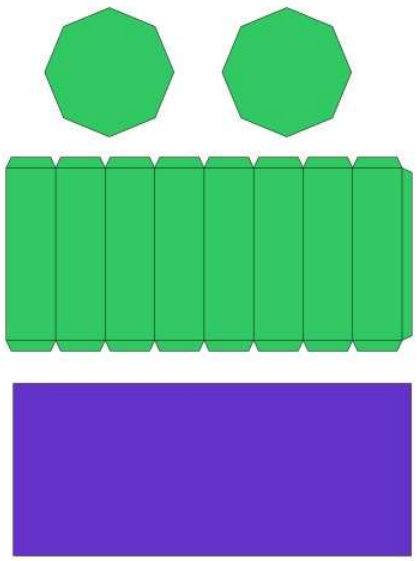


Output:
A report of the total size and width of the finished design
(Make note of this, since the scaling in Inkscape or Design space may not match, and you will need to adjust the size)

An svg file that contains:
An object, with tabs and scores that has a polygons of specified sizes at the top and bottom.
Two polygons that match the size of the top and bottom
An object that can be used to cut a decorative cover or overlay over the piece once glued.

Here are examples of the output of a collar and a column (the pieces have been moved for visibility.)





Construction

Construction is easy. Just glue the tab on one side to the opposite side. Use the polygon pieces at the top and bottom to keep the shape. Cut out the decorative piece on decorative paper and apply.
Be sure to duplicate the polygons if you want them part of both the decorative and structural pieces.

Suggestions:

1. Sometimes construction is easier if you create rings rather than solid pieces for the tops and bottoms of the collars/columns. It allows you to get a finger or tool inside to help glue tabs. To do that duplicate the polygons (twice, if you want to close off the hole in the ring). Then make one of the duplicates smaller (by the tab height or more) and subtract from the original sized polygon.

2. The output contains only structural pieces for the tops and bottoms. If you need to have decorative paper on either or both, duplicate as needed.

Scaling and Attributes

The scale of the svg may not match your editing software. Make note of the dimensions that are reported to you so you can re-scale as needed. As is, the output should import directly into Cricut Design Space at the right size (as of this writing, anyway.). Default colors have been assigned. Please note that the objects are all there, but may be located stacked in the layout.

INSTALLATION: (assumes you already have Inkscape 1 beta or higher installed)

Installing Python 3 and the needed libraries (you only need to do this part once)

1. **Download Python 3** from https://www.python.org/ (not the Windows store) Choose the version that is appropriate for your system

2. Launch(double-click) the executable -- the .exe file (defaults are okay, but choose the option to modify the PATH variable).

3. On Windows 10: Open a command window: Type **cmd** in your windows search box.

4. Install needed libraries

Now we need to add a couple of libraries to Python. In your command window, type the following (in this order)

```
pip install numpy

pip install svgwrite

pip install svgpathtools
```

...and you are done installing Python. You can close your command window now.

IMPORTANT Collar was developed for an upcoming **1.0 version of Inkscape**, which is in beta at the time of this writing. Unlike the previous versions, this one places the origin in the upper-left. The application doesn't support a lower-left origin.

Getting and running the collar.pyw

1. Click the green "Clone or Download" button on **https://github.com/obzerving/collar**

2. Unzip the downloaded files. (you only need to do steps 1 and 2 once)

3. Double click on the `collar.pyw` file. Complete the info needed in the dialogue. See "input" above.