Using the Extruder Inkscape Extension for Inkscape 1.1
by Observing

Check your preferences: Se below** for important settings you should make before you design your document.

Prepare your path
The path MUST be composed of straight segments. Every segment will generate a tab on the side of the extrusion, so eliminate unnecessary tabs -- specifically any extra nodes that lie on a straight segment. You object must be a path, not a "Shape".

Some Inkscape actions -- for instance, inset or outset -- will generate paths with curves. **To insure that your path is composed of only straight segments, do the following steps:**
1. Select your object.
2. Click on the node tool (F2)
3. Select all the nodes (ctl A)
4. Click on the node icon "convert to straight line segments"

If your path is inside a group, **ungroup** it.

Set any styles (stroke width, color, etc) *before* applying extruder. It will maintain the same styles. If you have none, it may appear to be missing score lines when the extension runs. (You can correct this by selecting the created objects and setting a stroke and fill.)

After your path is prepared, simply click **Extensions->Papercraft->Extruder...**

Set the parameters to your preference. Be sure you make note of the dimensional units being used.   The "Maximum length of the extrusions" setting is to allow cutting to fit on your paper/cardstock size. For instance, if you are using letter-size paper to cut, you might want to limit this size to maybe 10 inches.

Click Apply

If all goes well, you will generate the following:

A copy of the original shape path with a 1 and 2 indicating the start point and direction of the side pieces. These are on a separate layer, so will not move with the object path unless you select both before moving. Remove or hide the numbers before cutting. It will also generate the side pieces, and corresponding decorative side wrap pieces.

If you are using a patterned or textured paper, mirror one of the copies of the main shape (the path you used to extrude)

Duplicate these two pieces (one mirrored) to use for decorative/wrap.   You may want to smooth out/and or outset these two pieces for a more finished look.

Preferences Setup
There are a couple of setting that can affect this extension. Please insure that the following are set:

Edit->Preferences->Behavior->Transforms **Store tranformation** should be set to "**Optimized**"

Edit->Preferences->Input/Output->SVG output:
        Under Path Data: **Path string format** should be **Absolute**

Additional USAGE NOTES - EXTRUDER

Special notes, especially for using text letters and some other shapes as source for extruder.

1. ALWAYS **convert to a path** *before* **performing** *any* **operations** (moving, resizing, etc.) on the object. Why? Inkscape will apply matrix transforms on text objects (and some others) when moving and resizing, rotating, etc. The Extruder extension code cannot process paths with matrix transforms.   You can avoid this problem by always making the object into a path immediately.

2. **UNGROUP** if necessary. When text is changed to a path it is put inside of a group.

3. **DUPLICATE** the shape path twice **before** changing to straight lines. This will provide what you need for the decorative paper on the top and bottom of the object. The extension does not make those pieces.

4. You will also want to **MIRROR** one of these duplicates if your paper is patterned or textured. Mirror one of the structure shapes as well, if you are using textured or patterned paper.

4. **CURVED OBJECTS**: Some curved paths will require more nodes to conform to the shape better when changed to straight line segments. When this is the case, use your node tool select the path (or just the curved segments of it) and click on the tool to "insert new nodes into selected segments" This will generate more tabs, but the shape will be truer.

5. **EXTRA NODES** extra nodes will product extra tabs. Be sure you take a look at straight segments and remove unnecessary nodes after changing the path to straight line segments.

6. **STRAIGHT SEGMENTS!**   Double-check that all your segments are straight, not curved. With your node tool, select all the nodes and click on the "make selected segments lines" icon.

7. **INSIDE PATH** Decorative Strips: Keep in mind that inside decorative strips might need to be a bit shorter than they are created. (~1%) This is simply an artifact of the thickness of the paper when constructed. Either shorten them a tiny amount, or trim them when applying. If your path is simple, like the inside of an "A", you might find it helpful to cut the decorative pieces apart at the score lines and apply separately, trimming as needed.

8. **OUTSIDE PATHS** Decorative strips It is a good idea to add a small amount (~ 1%) of the length of the decorative strip on outside paths.

9. **CHECK YOUR PREFERENCES**: Inkscape preferences must be set as indicated in the documentation before doing your path operations. If you have paths that were created before then that do not work properly with the Extruder extension, you will need to re-draw them. Inkscape will not change existing paths based on Preference changes.

10. **ASSEMBLY HINTS** letters and other objects with inside cutouts. If you have a shape like an "A" or "R" with inside paths, when assembling, only put one of the main shapes onto the side pieces, until you have similarly glued in the inner pieces. This makes it easier to reach to glue. If you have a larger piece and needed even more access, you could create a piece that has a cutout inside where you could reach with your fingers. If the piece were round, for instance, the cutout would look like a ring.

11. Generated pieces have labels that you can see in the Objects panel. The suffix will help you identify which path (if you have cutouts in a piece or more than one piece selected) , a letter "d" or "s" that shows if the piece is a decorative piece or a structure piece, and finally the number of that piece if the path needs more than one piece. Refer to these labels if you need some help figuring out what attaches to what.

So path2958-0s0 will attach to path2958-0s1, in this example.

You can always click on the piece and look in the object panel to see its label.

👁	🔓	abc	▥	path2958-1s0
👁	🔓	abc	▥	path2958-1d0
👁	🔓	abc	▥	path2958-0s1
👁	🔓	abc	▥	path2958-0s0
👁	🔓	abc	▥	path2958-0d1
👁	🔓	abc	▥	path2958-0d0