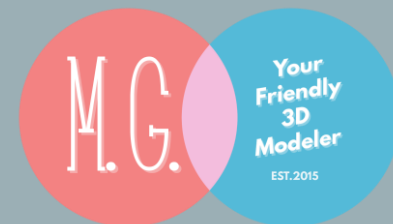


LASER CUT & DESIGN

WORKSHOP

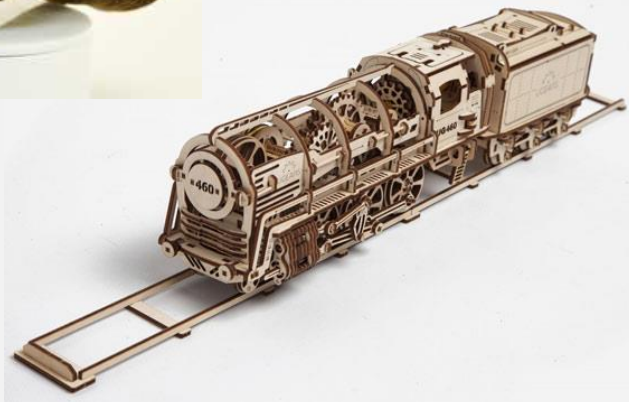
By Magnum Chau

@twitte_king

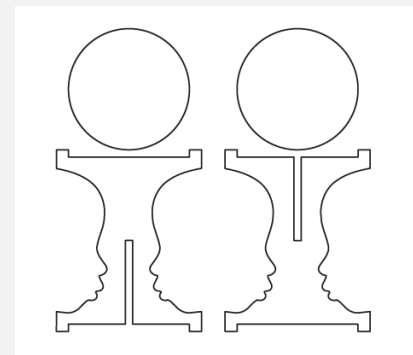


WHAT CAN YOU DO WITH LASER?

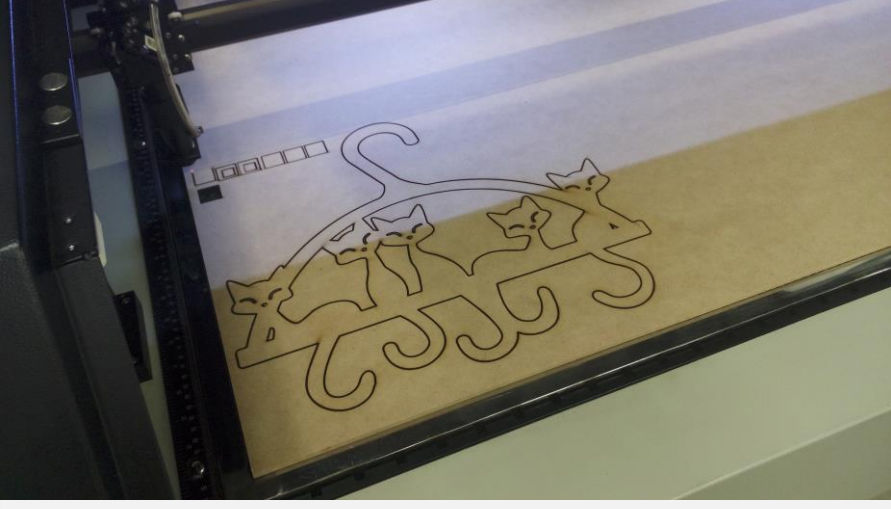
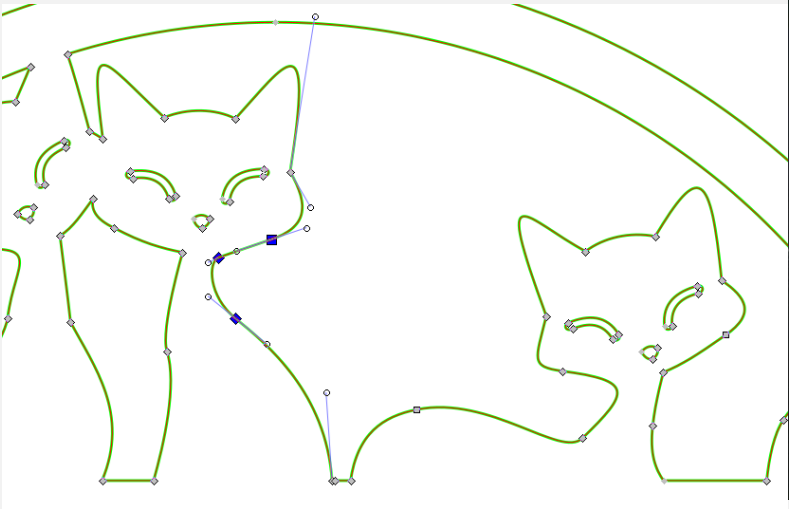
- <https://www.instructables.com/howto/laser+cut/>



PROJECT SAMPLES



TIMELINE



Intro **Hanger design** **Hanger cutting** **Candle holder design** **Candle holder cutting** **Candle holder assembly + more**

Today

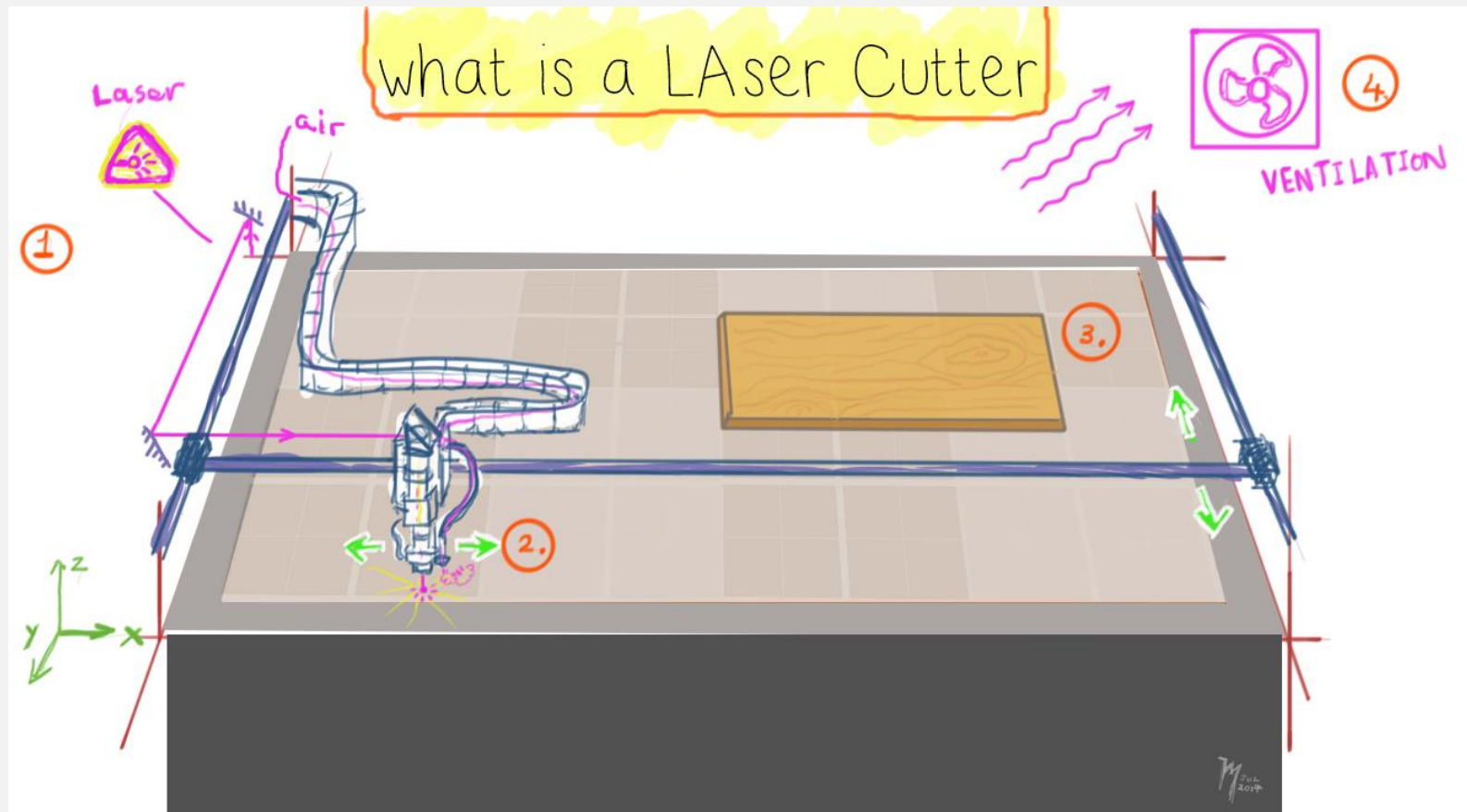
B4 Tue 1 August

Thur 3 August

Thur 10 August

!!Safety First !!

LASER CUTTER



WHAT DOES THE MACHINE SEE?

Anything wrong with this design?

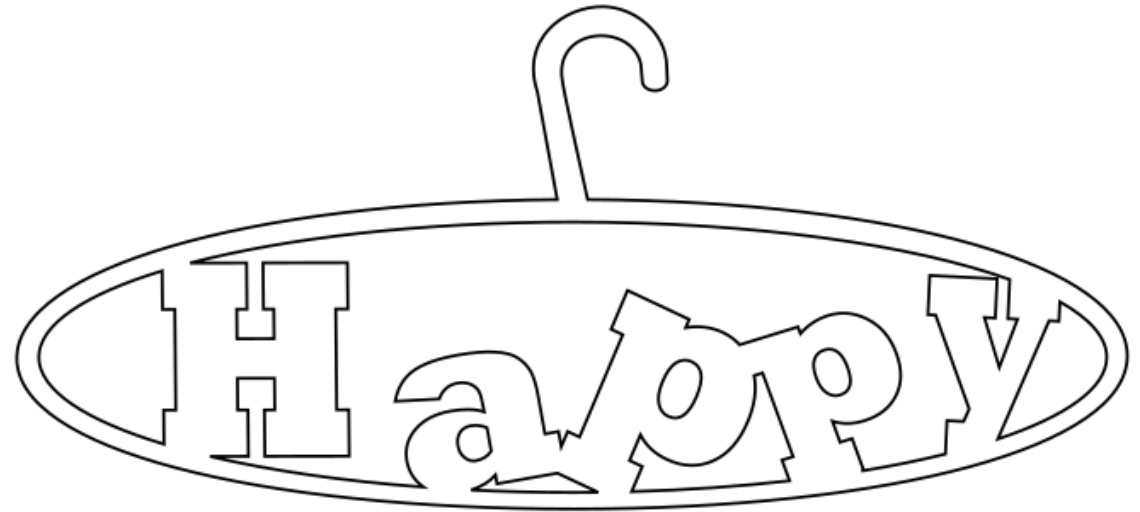
- Floating “p”
- Solid fill
- Scale and dimension



WHAT DOES THE MACHINE SEE?

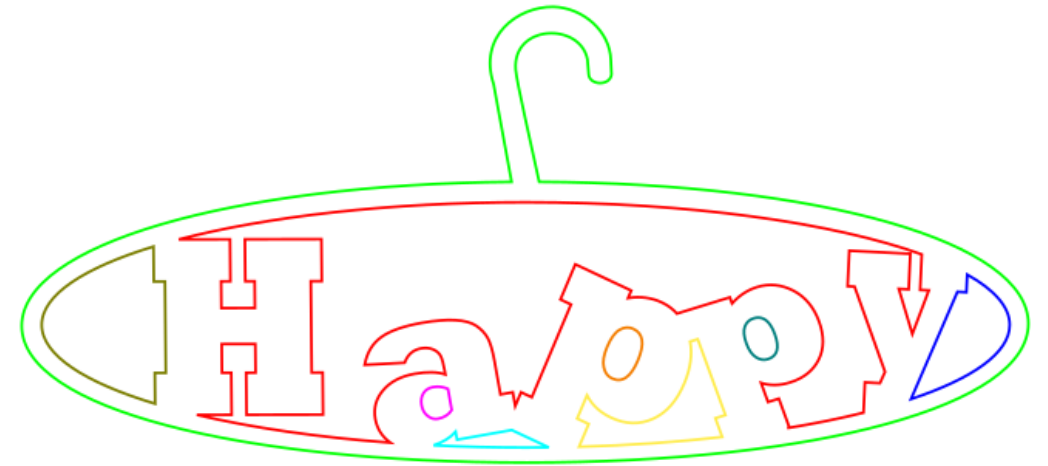
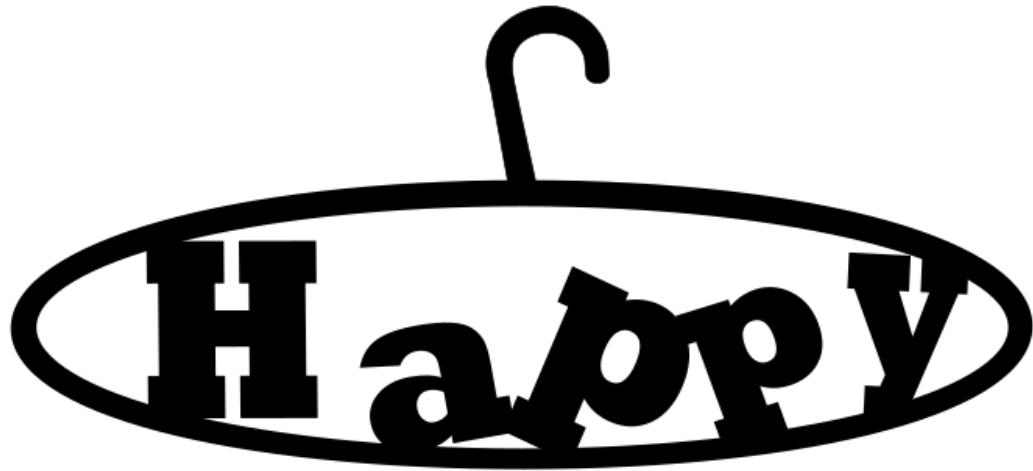
Improvements made:

- No floating shapes
- Only paths, no fill
- Proportional dimension



□ 1 cm

SOLID VS NO FILL



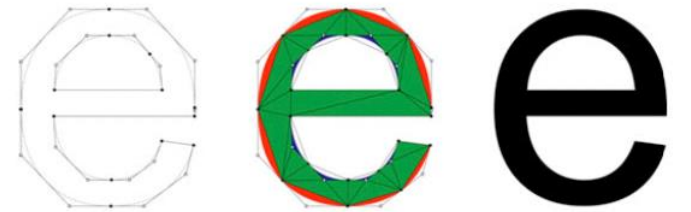
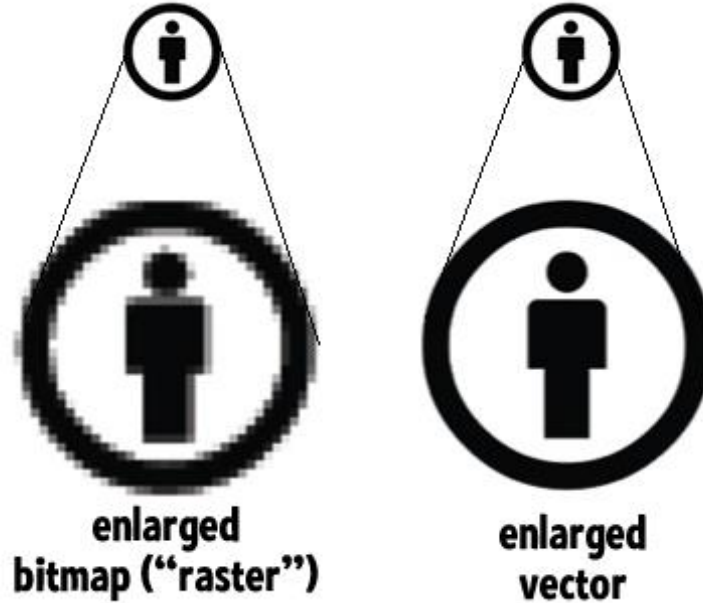
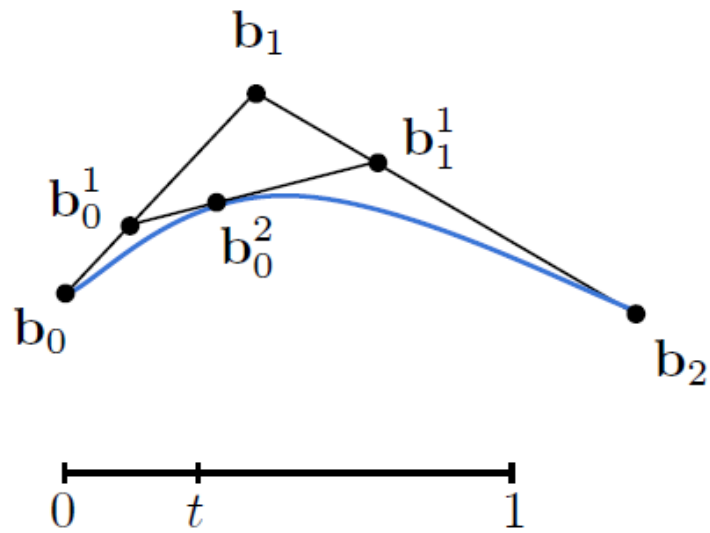
Human Cognition interpretation

Black = made of wood
White = Empty Space

Machine Vector interpretation

9 different cutting paths (false color visualization)

VECTOR DESIGN



Charles Loop and Jim Blinn. "Rendering Vector Art on the GPU". GPU Gems 3, Chapter 25, Addison Wesley, 2007

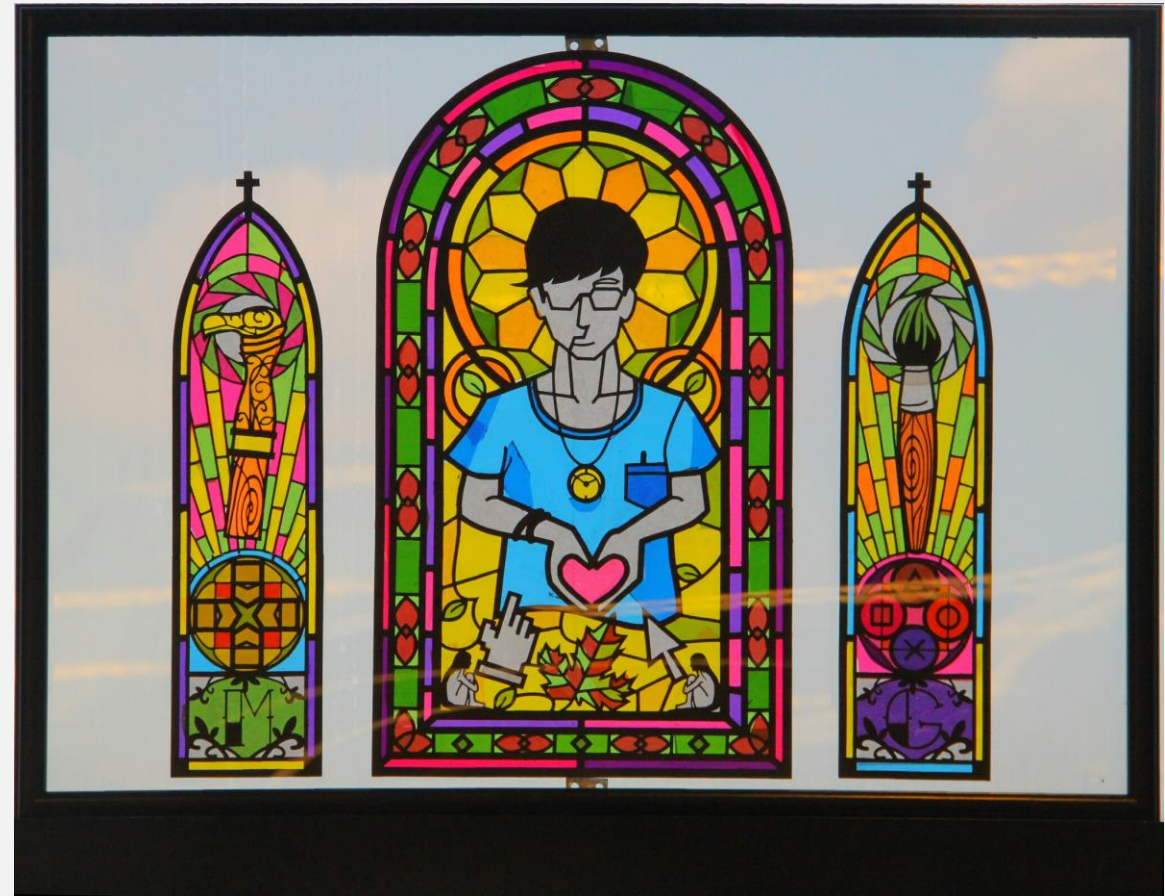


Common Vector Formats:

`.ai` `.svg` `.eps`

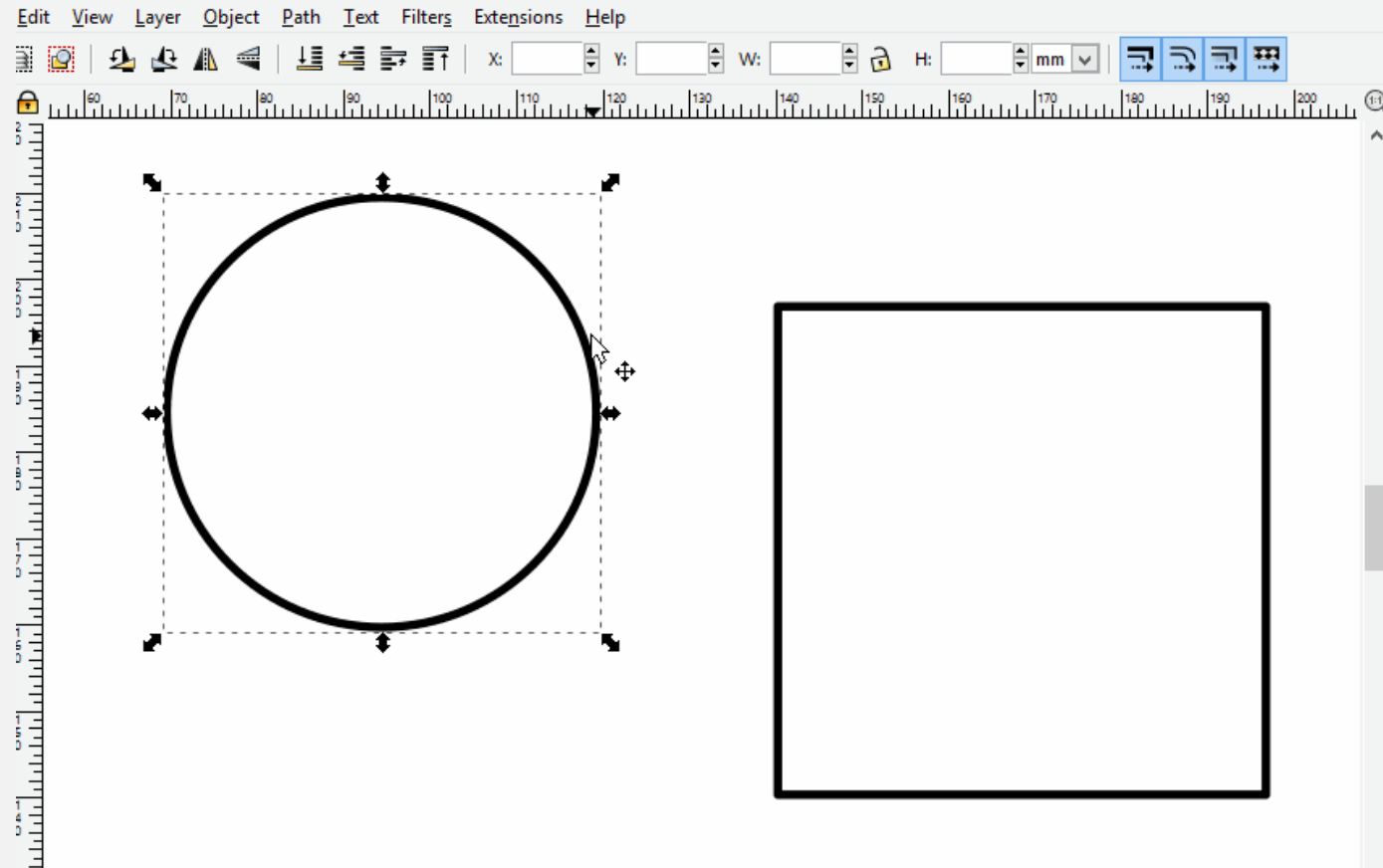
VECTOR SOFTWARE

- AutoCAD, Illustrator
- **Inkscape**
 - Free, Open source
 - Simpler than Illustrator



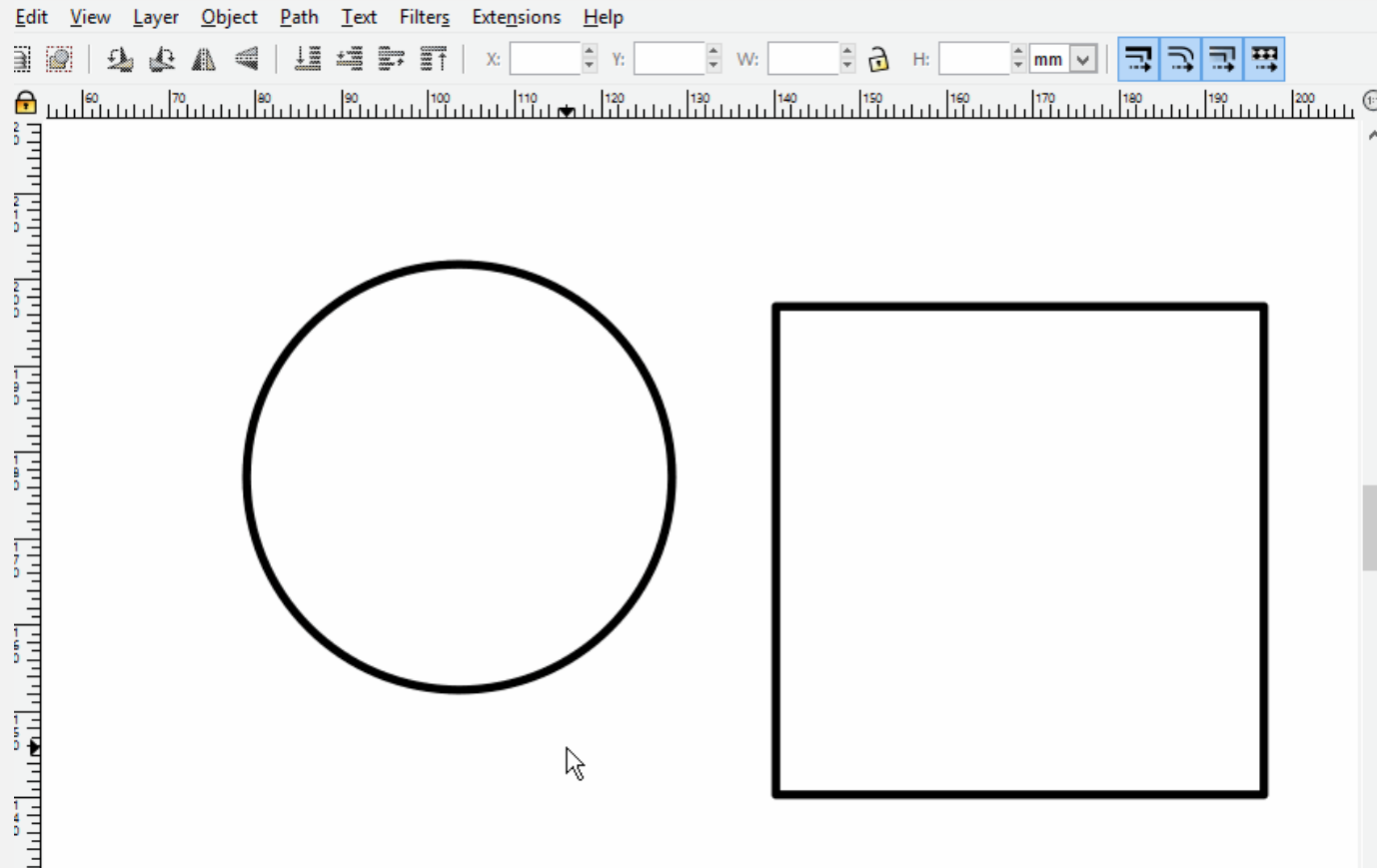
INKSCAPE FUNCTIONS

BOOLEAN-UNION



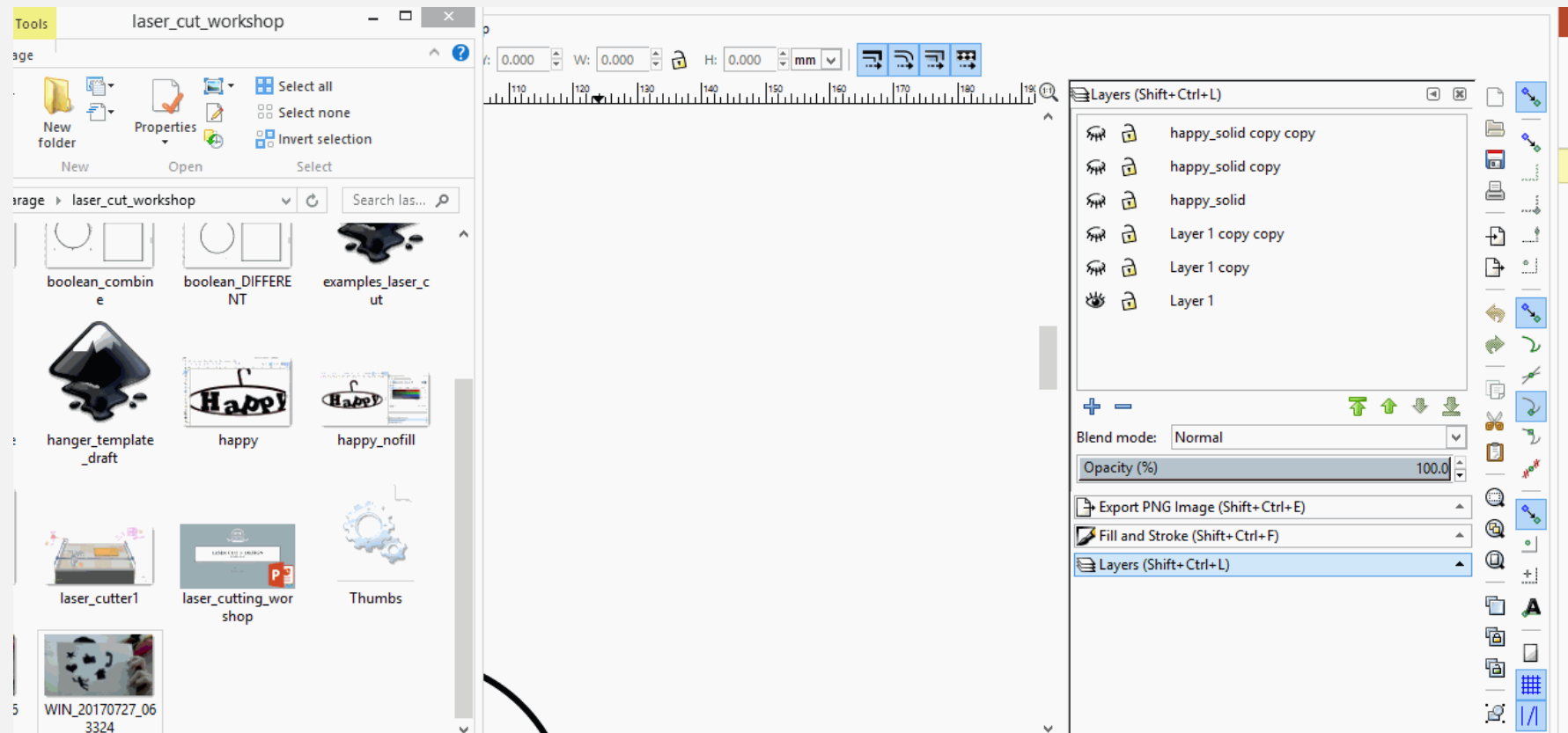
INKSCAPE FUNCTIONS

BOOLEAN-DIFFERENCE

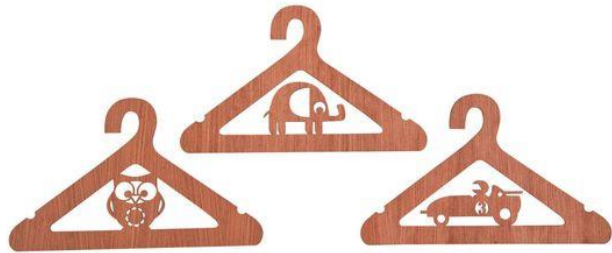


INKSCAPE FUNCTIONS

PHOTO/DRAWING TO PATH



INSPIRATION



LET'S DESIGN TOGETHER

hanger_template.svg

