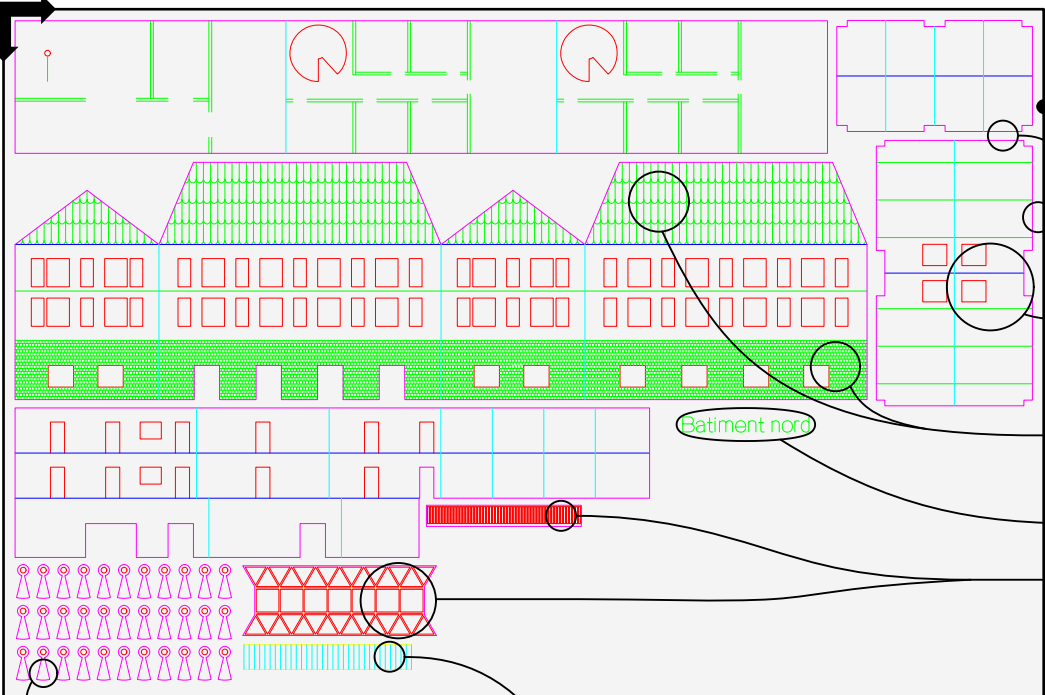


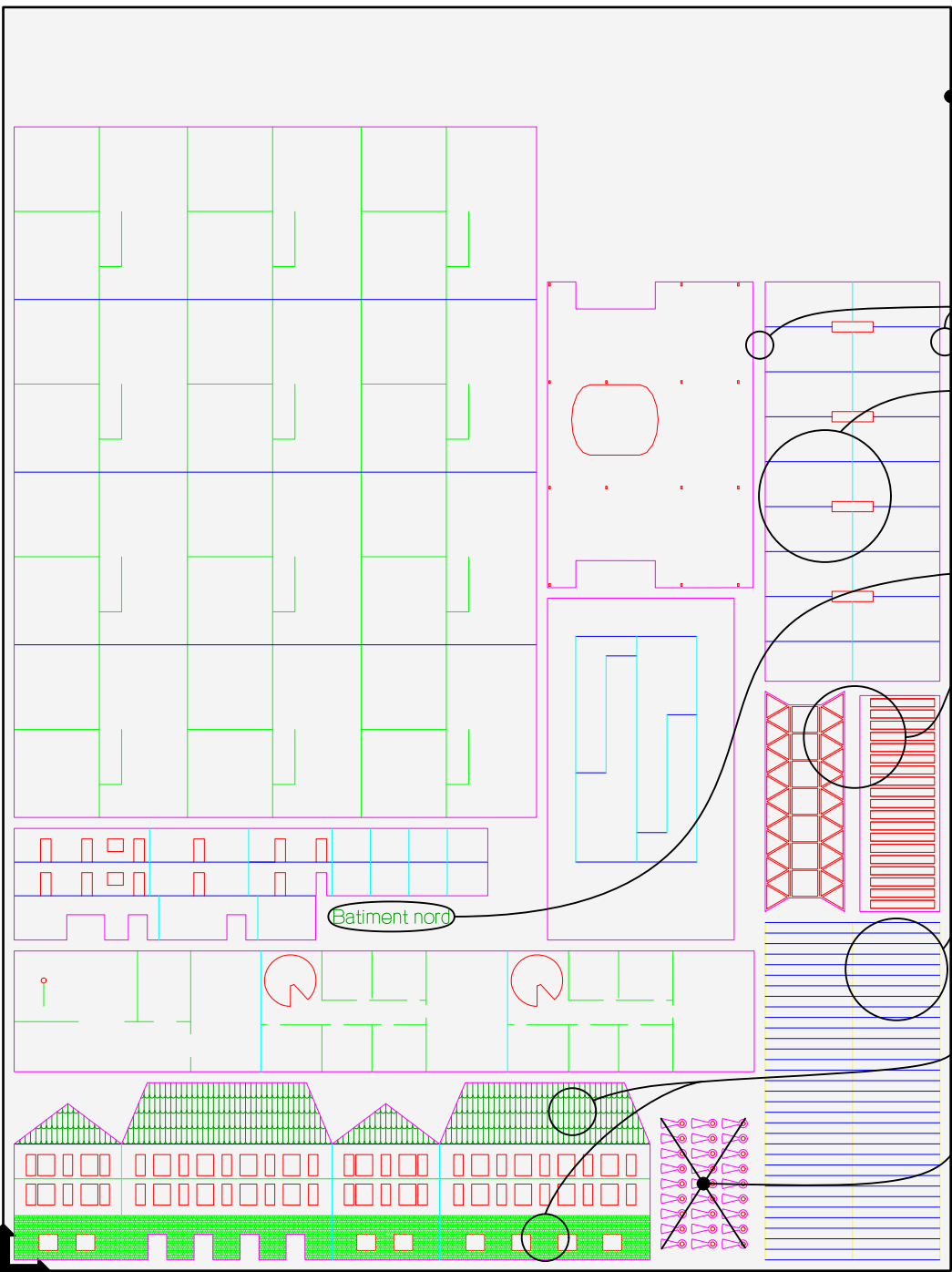
Origin (0,0,0 file)



FILE FOR LASER CUTTING

- Draw the perimeter of your chosen material, standard laser cutting format, 900 x 600mm or inferior if your material is shorter. The orientation of your drawing is horizontal, **landscape format**. Group your pieces close to the origin, top left.
- Leave a margin, 10mm towards the inside of the cardboard and 5mm between your pieces.
- The colors correspond to a cutting order as well as to machine functions (engraving/deep engraving/pen/cutting). See below: **COLOR ORDER AND MACHINE FUNCTION CHART**
- Be careful with the amount of engraving. This can take up a lot of time during your cutting appointment. We are here to offer rendering ideas/advice.
- Text, 8mm single-line font, light green.
- Pay attention to the minimum thickness of your parts, see below: **DIMENSION TABLE - ORIENTATION - MARGINS - THICKNESSES**. Use black cardboard (denser) for these types of thin and fragile pieces, especially if you are going to paint them.

► Refer below to: **STEPS AND INSTRUCTIONS FOR CREATING CUT FILES** for the rest of your file (unit, scale, layer, export and other useful information)



FILE FOR THE ZUND

- Draw the perimeter of your chosen material, standard Zund format, 900 x 1200mm. Verify the size of your material on our website, see the PDF: **PRIX MATIERES ATELIER MAQUETTES**, link at the bottom of the page. The orientation of your drawing is vertical, **portrait format**. Group your pieces close to the origin, bottom left.
- Leave a margin, 10mm towards the inside of the cardboard and 10mm between your pieces.
- The colors correspond to a cutting order as well as to machine functions (engraving/deep engraving/pen/cutting). See below: **COLOR ORDER AND MACHINE FUNCTION CHART**
- Text, 8mm single-line font, dark green for pen.
- Pay attention to the minimum thickness of your parts, see below: **DIMENSION TABLE - ORIENTATION - MARGINS - THICKNESSES**
- Tip and tricks: When you have a lot of identical pieces, draw them so that they have only one common cutting line. Delete the overlapping lines and connect them with a cutting line or, if they are small, with a deep engraving line and releasing them with the cutting knife afterwards.
- Be careful with the amount of lines (pen or engraving). This can take up a lot of time during your cutting appointment. We are here to offer rendering ideas/advice.
- Parts that are too small cannot be cut on the ZUND, we recommend doing them with the laser cutter.

► Refer below to: **STEPS AND INSTRUCTIONS FOR CREATING CUT FILES** for the rest of your file (unit, scale, layer, export and other useful information)

TABLE ORDER OF COLORS AND FUNCTIONS ON MACHINES						
Color order for cutting		Colors	RGB Value	Fonction on the Laser	Fonction on the ZUND	Good to know
		Black	0,0,0	Drawing of the Material Format		The cutting order, from the inside out, is intended to minimize the possibility of pieces not fitting and tearing during cutting.
		Dark Green	0,127,0	-	Pen	
		Light Green	0,255,0	Engraving		
		Yellow	255,255,0	Bending or Deep Engraving !! Not possible for wood !!		
<div>Interior</div> <div>↓</div> <div>Exterior</div>	1	Red	255,0,0	Cutout - Inner Hole		The use of colors is used to define the operations to be performed and the order in which they will be executed.
	2	Blue	0,0,255	Cut - Horizontal Line		
	3	Cyan	0,255,255	Cut - Vertical Line		
	4	Magenta	255,0,255	Cut - Exterior Perimeter		
						These colors should be assigned to lines, not layers.

DIMENSION TABLE - ORIENTATION - MARGINS - THICKNESS					
Machine	Dimensions mm	Origin (0,0,0 file)	Exterior Margin	Margin between pieces	Minimum thickness of parts depending on the thickness of the cardboard
LASER	900 x 600 Horizontal	Angle top / left	10mm	5mm	~0,8mm
Big ZUND	900 x 1200 Vertical	Angle bottom / left	10mm	10mm	2mm - cardboard 1,0mm 3mm - cardboard 2,0mm 4mm - cardboard 2,5 mm
Little ZUND	800 x 1200 Vertical	Angle bottom / left	10mm	10mm	

WHAT MATERIAL, THICKNESS, DIMENSION ON WHICH MACHINE			
Material	Thickness	Dimension	Machine
Gray Cardboard <i>Carton Gris</i>	0,5mm, 1mm, 2mm, 2,5mm	For the dimension of these materials, please refer to PDF	ZUND + LASER
Wood Cardboard (yellow) <i>Carton Bois (jaune)</i>	1mm, 2mm, 2,5mm		ZUND + LASER
Black & White Cardboard <i>Carton Noir, Blanc</i>	1mm, 2mm		ZUND + LASER
Corrugated Cardboard <i>Carton Ondulé</i>	1,7mm, 3,7mm**		ZUND**+ LASER **WITH OSCILLATING KNIFE
Foam Board <i>Carton Plume</i>	3mm, 5mm, 10mm		ZUND ONLY** **WITH OSCILLATING KNIFE
MDF	3mm, 4mm, 5mm, 6mm	Link available on our website, also available below:	LASER ONLY
Sagex EPS - White / <i>Blanc</i>	5mm, 10mm, 20mm	Cut to size in the workshop before your cutting appointment. Beware of the maximum size of the machine.	ZUND ONLY** **WITH OSCILLATING KNIFE
Sagex XPS - Yellow / <i>Jaune</i>	10mm, 20mm		ZUND ONLY** **WITH OSCILLATING KNIFE
PET	2mm		LASER ONLY
White Paper <i>Papier Blanc</i>	0,4mm		ZUND + LASER
PET	0,5mm, 1mm		ZUND + LASER
Cross-Laminated Wood <i>Bois Croisé</i>	1mm	Dimensions available at the workshop, verify with what we have in inventory.	ZUND + LASER
Cross-Laminated Wood <i>Bois Croisé</i>	2mm		LASER ONLY
Lignaflex	0,8mm		ZUND + LASER
PLEXI	3mm - 10mm		LASER ONLY
FOREX	1mm, 2mm,3mm		ZUND ONLY
ABACHI	1mm, 2mm, 3mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm		LASER ONLY

► STEPS AND INSTRUCTIONS FOR CREATING CUT FILES:

- Scale your file to your model
- Change the units of your file to mm
- Prepare your drawing in a single layer
- Draw the frame for your material, check the dimensions on our website page, see the PDF - **PRIX MATIERES ATELIER MAQUETTES**: <https://www.epfl.ch/schools/enac/atelier-maquettes/vente-de-materiaux/>
- Optimize your file (distance between your pieces), join the lines (linked polylines), remove overlapping lines to save time on your cutting appointment and to conserve material
- Colors are assigned to the lines, see the **COLOR ORDER AND FUNCTIONS ON MACHINES TABLE**
- The line thickness is 0 or "hairline"
- The lines are continuous, no dashed or dotted lines
- Export each board separately : one board = one file
- The file is in .pdf format. If you don't know how to export your file with the correct settings, consult our website: <https://www.epfl.ch/schools/enac/atelier-maquettes/conseil-de-guide-decoupe/>
► **Export Settings** - and if nothing works, ask questions to workshop staff
- On your USB drive, create a **CUTTING** folder with two subfolders, **Laser & Zund**. Sort your files by priority and thickness, and name them as follows:

FILE NUMBER: 01
MATERIAL THICKNESS: 1mm
TYPE OF MATERIAL: carton gris
01 carton gris 1mm.pdf

- number your files according to the number you have, not according to the subject matter
- indicate the material type
- indicate the thickness of the material

!! No accents, periods, commas, or any other special characters in your file name !!

► INFORMATION ON YOUR APPOINTMENT:

- Come to the model workshop to schedule your cutting appointment. An appointment is 30 minutes per person on one of the two machines (Laser or Zund) per week. This time includes file processing, cutting, cardboard changes, etc
- A file that does not comply with the color, direction, or optimization guidelines may be rejected. Any changes made by the staff are taken from your appointment time
- You can come and have your files checked as soon as they are ready
- Come in 10 minutes before an appointment to pick up materials and cut them if necessary
- Please cancel your appointment if you no longer need it, in person or by phone at : +41 21 693 32 07
- The cutting calendar is available on our website : <https://www.epfl.ch/schools/enac/atelier-maquettes/calendrier-decoupe/>

► The machines may be used for projects related to school work; their use for private or professional projects is excluded.