

1 CHECK YOUR FILE

(On your own computer)

COLORCODE



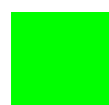
RGB (0, 0, 0) = engraving (surfaces, text, images)
-> PIXELS



RGB (255, 0, 0) = cutting at 20%(rapid engraving line)
-> not all the way through



RGB (0, 0, 255) = cutting at 100% (1st cutting line)
-> ideal for windowopening and islands



RGB (0, 255, 0) = cutting at 100% (2de cutting line)

ATTENTION: The lasercutter wil follow this order of colors

IN DRAWING PROGRAM

(Vectorworks, AutoCAD, ArchiCAD, Rhino, Sketchup , ...)

o Make a 2D drawing using a **line thickness of 0.05 or HAIRLINE**

--> otherwise the laserprogram wil not be able to recognize your drawing

o **ATTENTION: CLOSED polygons and NO DOUBLE LINES**

--> Otherwise the lines will be lasered twice

o Lines in the **RIGHT** color according to the color code

--> otherwise the laserprogram wil not be able to recognize your drawing

o Try to remove the **WATERMARK**

--> otherwise the laserprogram wil uselessly engrave this

=> **EXPORT EVERY DRAWING AS A PDF**

TIP : export each page **SEPARATELY** in **LANDSCAPE MODUS** using a clear **NAME**

WHAT CAUSES THE PRICE TO RISE

o **DOUBLE LINES**

--> laser goes over it twice --> more burned edges

o **UNCLOSED POLYGONS**

--> The machine jumps from one random line to another
--> waste of time

o **RESOLUTION IS TOO HIGH**

--> performance takes longer

o **DIFFERENCE BETWEEN BLACK AND RED in the colorcode**

--> **BLACK:** engraves a **FILLED PIXELATED SURFACE.**

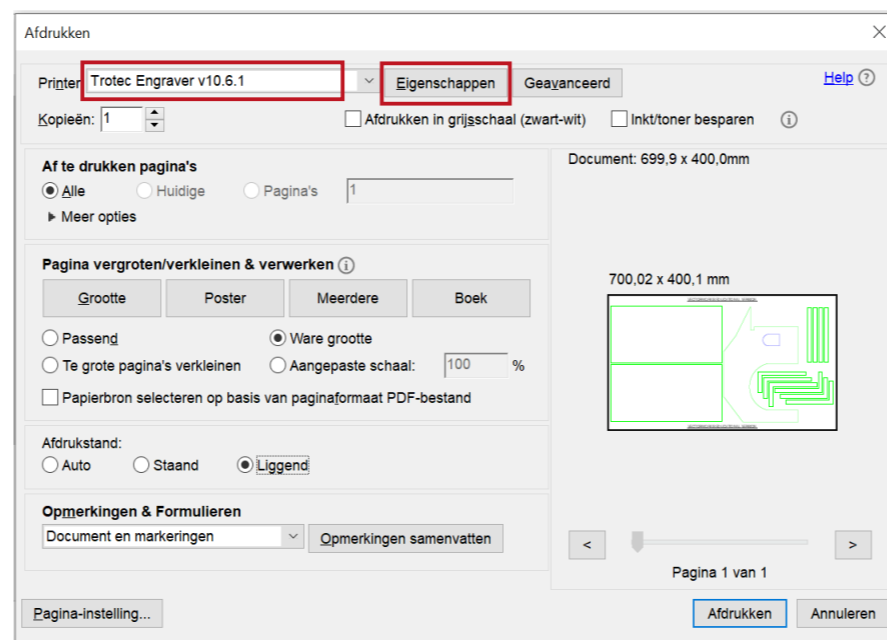
--> **RED = RAPID CUTTING LINE** where a **VECTOR LINE** is engraved

2 UPLOAD YOUR FILE

(On the computer in Workshop)

--> **CLOSE** all previous windows

- o Open your PDF and choose "AFDRUKKEN" (print)
- o Under printer choose for **TROTEC ENGRAVER v10.2.0**
- o Click on "EIGENSCHAPPEN" (properties)



STEP 1: enter the desired dimensions of the material

--> **STANDARD :** "Breedte: 700mm / Hoogte: 400mm" (also the max dimensions for the laser)

STEP 2: Choose the right material

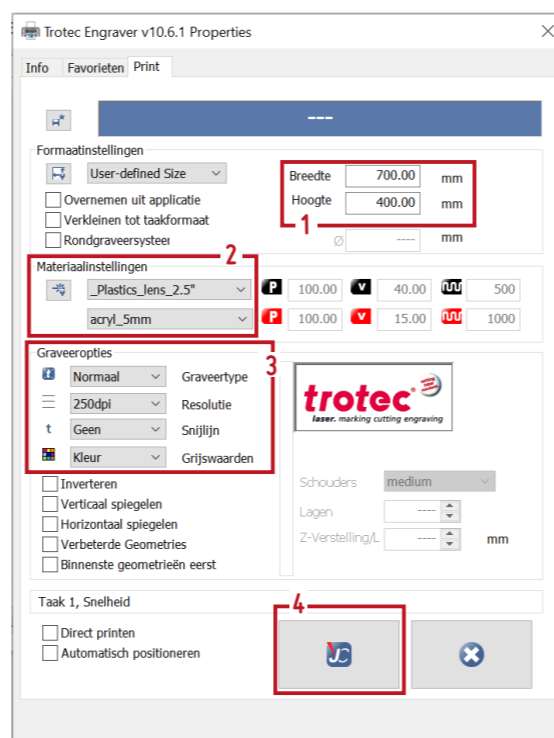
--> Different materials affects both the time and the price.

STEP 3: Choose for the **STANDARD PROPERTIES**

--> **Graveertype:** Normaal / **Resolutie:** 250dpi / **Snijlijn:** Geen / **Grijswaarden:** kleur

STEP 4: Confirm using the icon at the bottom left

PLEASE DO NOT CHANGE ANY OTHER FEATURES



ATTENTION: ALWAYS CHECK !!!

Because the settings of the previous user are taken over. if these were not the default settings, it may interfere with your task.

MATERIAL SETTINGS

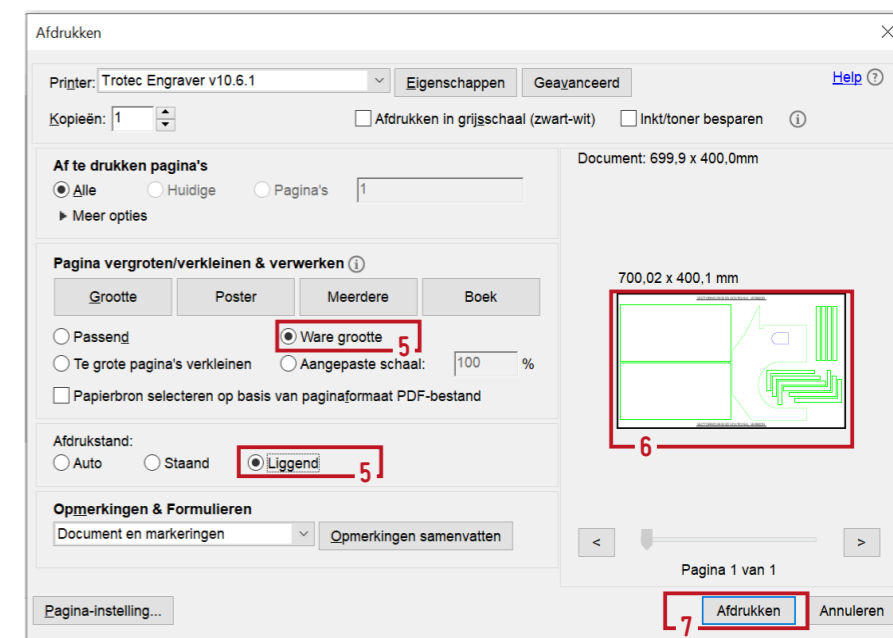
Heavier/thicker material takes more time for the machine to complete task and results in a price increase.

STEP 5: Choose for 'WARE GROOTTE' (true size) en 'LIGGEND' (landscape)

--> Ensures correct placement of design based on desired width orientation of lasercutter

STEP 6: check if your drawing fills the whole space correctly

STAP 7: Click "AFDRUKKEN" (print)



ENGRAVING A PHOTO

PREPARATION

STEP 1: right photo quality

- o Choose an image with a high resolution, good contrast, sharp details, clear focuspoint.
- o Remove redundant details en busy backgrounds
- o Convert your image to grayscale.
--> make sure it still retains enough contrast

STEP 2: Save the photo as a PDF and import it as a normal 2D drawing

CUSTOM SETTINGS

STEP 3: Adjust the dimensions according to the size of your material

STEP 4: Choose the right material

STEP 5: Adjust the settings for engraving a photo

--> **Graveertype:** Foto geoptimaliseerd

--> **Resolutie:** minimum 333dpi

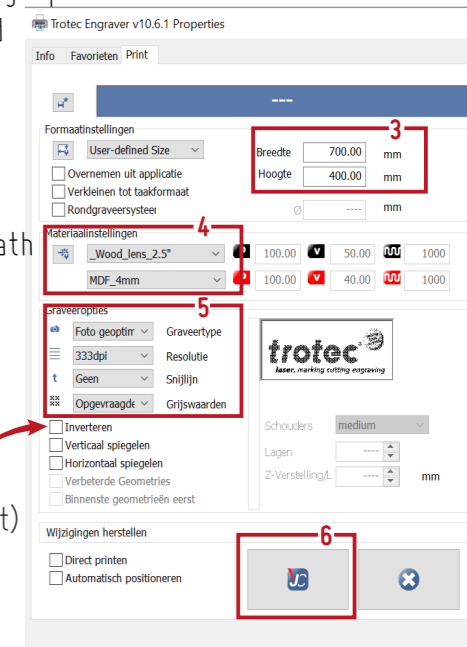
--> **Snijlijn:** Geen

--> **Grijswaarden:** Opgevraagde raster

STEP 6: Confirm using the icon underneath

ATTENTION:

- o If engraving
 - on a darker material
 - on a transparant material
- > tick the option "INVERTEREN" (invert)



3 CONVERT YOUR FILE

(On the computer in Workshop -> JobControl)

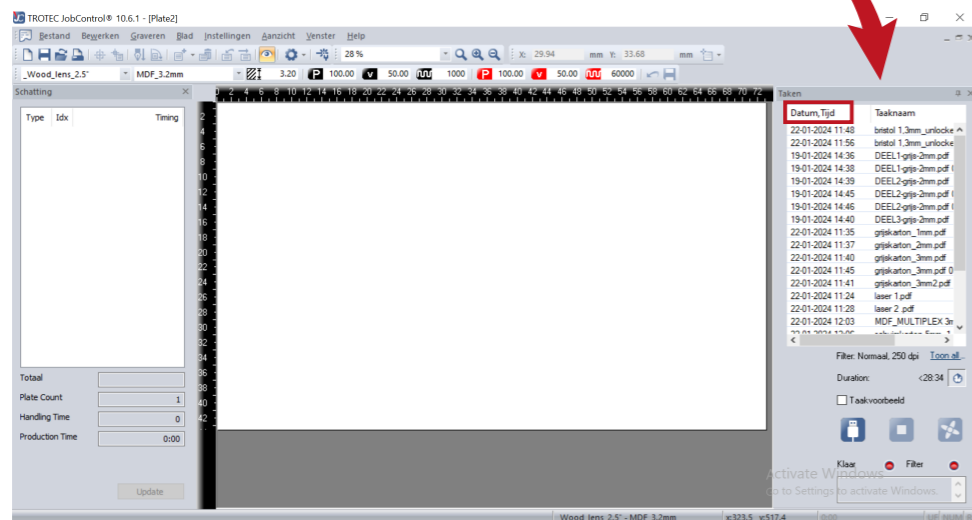
JobControl will open (automatically)

--> always start with a blank worksheet (Ctrl + N)

Your PDF will appear on the right in the waiting list

--> Give your pdf a clear name to be able to find it easily.

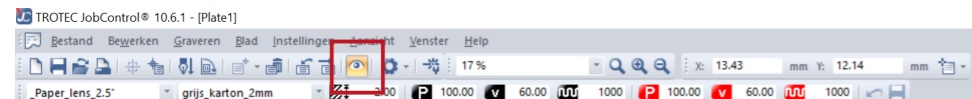
otherwise order the list by 'date and time' with the most recent at the top



STEP 8: Drag your task from the waiting list to the workspace

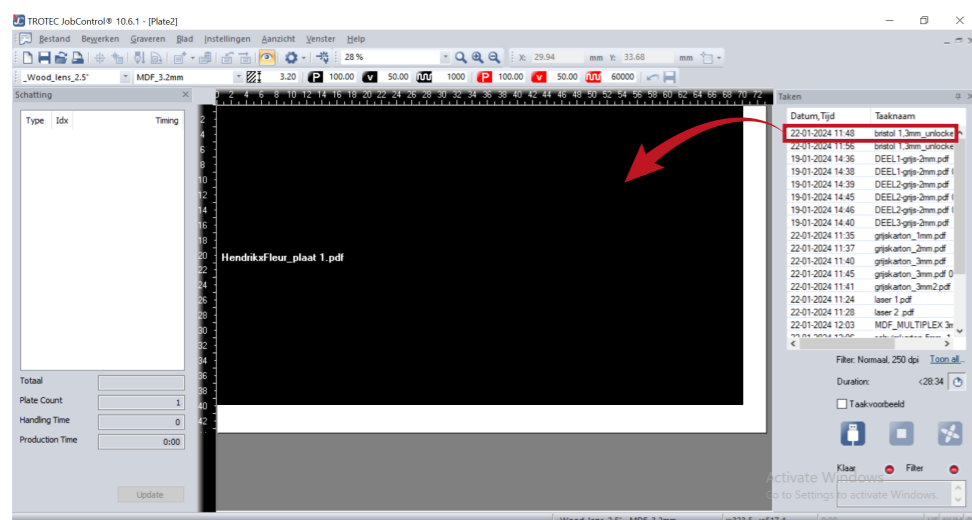
If your drawing isn't visible and you see a black surface

--> Tick the 'eye' icon in the menubar above



ATTENTION:

- Once you dragged it onto the workspace, --> it automatically will be deleted from the waiting list
- You can only drag 1 pdf at a time, when working with multiple pdf's --> delete the previous by right clicking and choosing "TAAK VERWIJDEREN" before you drag a new one onto the workspace.

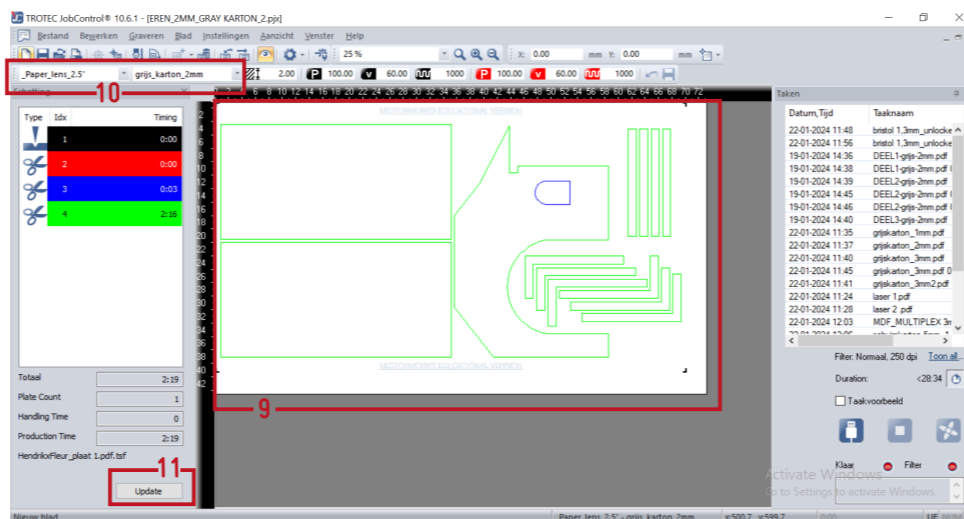


STEP 9: Once the drawing is visible, position it in the LEFT UPPER CORNER of the workspace.

STEP 10: Check if the material still applies, if not change it again

STEP 11: Click "UPDATE"

--> THIS GIVES YOU AN IDEA OF THE DURATION OF THE TASK AND GIVES YOU AN ESTIMATION OF THE FINAL PRICE.



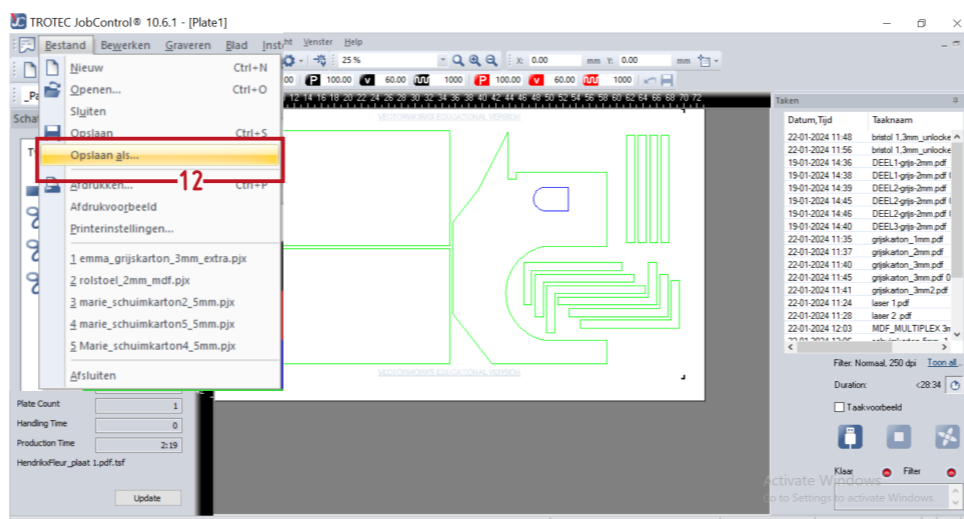
ATTENTION:

- If the TIMING indicates 0:00 everywhere, it means that the program couldn't recognise the colors or the tickness of the drawing
 - > go back to your own DRAWING PROGRAM
 - > review THE COLORS AND LINE THICKNESS
 - > save as a NEW pdf and re-import it.
- When changing the material settings, always click UPDATE to get the updated timespan.
- Estimate PRICE = (TIMESPAN) x (0,55)
 - > however, this is only an ESTIMATE and the final price may differ in this regard

STEP 12: Save it as an .pjl with OPSLAAN ALS (save as)

(avoid overriding the previous saved items when working with multiple pdf's).

STEP 13: Choose a clear name (preferably : name_material_thickness) and save the .pjl-file in a SEPARATE folder on a USB-stick.



4 SUBMIT YOUR FILE

(Digital and on the rack next to the computer)



Scan the QR-code and fill in the Google form

ATTENTION:

- if the form is not filled in correctly especially in terms of naming files, your assignment will be set aside and you will receive a notification to correct it



UHasselt Makers Lab - Lasercut

This form will put your lasercut file in the job queue. You can then deliver the laser box in the workshop together with the material and the USB stick. Make sure your name is clearly on the laser tray.

You can track the progress of your lasercut order [here](#).

Laseroordrucht-involstrook: Nr/ _____

Naam/ _____

USB stick/ _____

Map/submap/ _____

Bestandsnaam/ _____

Aantal laser/ _____



Fill in the fill-in slip and place this also in your lasertray.

-> PLACE EVERYTHING IN THE RACK

5 TRACK YOUR FILE

(Digital)

Tijdstempel	Naam	E-mail	USB Stick - omschrijving	Map/submap/...	Bestandsnaam + aantal keer laseren	Materiaal	Dikte (in mm)
15/02/24	Marleen Konings	marleen.konings	UHasselt 8GB rood	Laser_Master	1_MarleenK_brnkarton_4mm x1	Bruin karton	4mm
15/02/24	Jan Smith	jan.smith@student.uhasselt.be	Integral 32 GB blauw	Final_Laser	1_JanSmith_GrKarton_3mm x2	Grijs Karton	3mm
					2_JanSmith_GrKarton_3mm x1	Grijs Karton	3mm
					3_JanSmith_MDF_2mm	MDF	2mm

- WELL RECEIVED AND IN PROGRESS
- DONE (can come collect it and pay for it)
- PROBLEM ENCOUNTERED, --> should stop by
- ALL TAKEN CARE OF (collected and paid)

Payment will be made at the time of retrieval of the lasertask via PING PING on site