CO2 Laser Cutters

About	CO2 laser cutters are very useful for cutting and engraving non-metallic materials. Mirrors are used to focus light and guide a laser beam into the material.
Category	2D Fabrication
Location	Front Room
Materials	• Untreated woods (e.g. pine, spruce, balsa, basswood, plywood) • Approved polymers/plastics (e.g. acrylic, PETG) • Paper/cardboard (e.g. construction/printing paper, matboard/chipboard) • Approved fabrics (e.g. all-natural fabrics, 100% natural leather, polyesters) For a full list, please see .

Model Specifics

Properties	Status	About
Red - ILS12.75	AVAILABLE	Work Area: 48 x 24 in (1219 x 610 mm) Maximum Part Size (WxHxD): 52.5 x 30 x 12 in (1334 x 762 x 305 mm) Maximum Part Weight: 60 lbs (27 kg)
Blue - PLS6.150D	AVAILABLE	Work Area: 32 x 18 in (813 x 457 mm) Maximum Part Size (WxHxD): 37 x 23 x 9 in (940 x 584 x 229 mm) Maximum Part Weight: 40 lbs (18 kg)

Blue - PLS6.150D

Red - ILS12.75

Standard Operating Procedure

⚠ **Google Apps Sign-in Required**

You must login to your uAlberta Google apps account to access these files.

Training

To be trained on the CO2 Laser Cutter you can either take the fully in-person training session or the two-part hybrid training session.

Sign up for fully in-person training here: Training Registration Calendar

Begin hybrid training session here: Elko Engineering Garage eClass

After completing the online hybrid 1A session, you will gain access to a private training calendar through eClass to book an in-person hybrid 1B session.

Training	Type	Time Estimate	Prerequisites	Checklist/Document
LC - Training 1 In-Person	ON-MACHINE	50 min	None	
LC - Training Hybrid 1A: Online	ONLINE	30 min	Online orientation	Complete the online quiz
LC - Training Hybrid 1B: In-Person	ON-MACHINE	20 min	LC - Training Hybrid 1A: Online	
LC - Training 2 - Rotary Axis	ON-MACHINE	30 min	CO2 Laser Cutter Training (hybrid or in-person)	

Documentation

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Safety Data Sheets	N/A
Hazard Assessments	

Application Resources	• Elko Engineering Garage YouTube - CO2 Laser Cutter Training Video - 1A (As reference only, not a substitute to eClass training video)
	• Project ideas
	• Templates:
	  ◦ [INCHES] Blue Laser Template.ait
	  ◦ [INCHES] Red Laser Template.ait
	  ◦ [MM] Blue Laser Template.ait
	  ◦ [MM] Red Laser Template.ait

Manufacturer's Manuals	