

CNC MILLING MACHINE

RISK ASSESSMENT

Date of Assessment	March 2023	Version	1.0
Activity	Cutting wood on the CNC router		
Equipment	Shapeoko 4XXL manufactured by Carbide3D		
Induction / Role Required	Training & Certification Required before unsupervised use		

Risk Rating	Action
LOW	Ensure current control measures are in place and continue with activity
MED	Control measures may be adequate, co-supervision is recommended
HIGH	Do not undertake activity without further consultation with Makerspace specialists

RISK ASSESSMENT

Identify Hazards	Who may be harmed and how	Severity	Control Measures	Likelihood	Risk Rating
<i>Something with the potential to cause harm</i>	<i>Users, bystanders or particular at risk groups</i>	<i>Low / Medium / High</i>	<i>What is in place to reduce the harm or likelihood.</i>	<i>Low / Medium / High</i>	<i>Low / Medium / High</i>
Incompetent user	User, Bystander	HIGH	Users must not use machinery or tools that they are not competent to use. Members must challenge use that they believe is dangerous. All members must request training via a competent member or team leader. Users must read the risk assessment before using a tool. Users must complete induction and training and be a certificated user before unsupervised use of the machine.	LOW	MED
Contact with router bit	User	HIGH	Do not touch moving parts of machine once in use. Enclosure doors should be closed immediately after starting the router and the router stopped immediately after opening enclosure doors. The router should be switched off at the mains socket when fitting or changing cutting bits on the router.	LOW	MED
Ejection of workpiece (Kickback)	User of the tool, users of the room, the space.	HIGH	Check that material to be cut is fixed securely to the bed before switching the machine on. Take particular care when working with smaller pieces of material to ensure the material will not move. Use tabs on your design file whenever you are cutting through material completely.	MED	MED

Dust (inhalation, fire, explosion)	User of the tool, users of the room, the space.	LOW	The CNC should only be used with the dust extractor attached and working. A respirator or mask should be used whilst operating the CNC for prolonged periods	LOW	LOW
Blade snatching or jamming	User of the tool, users of the room, the space.	LOW	Do not exceed the manufacturers recommended feed and speed settings on the CNC. Do not exceed recommended cutting depths Make sure that your material is free from foreign objects. Do not make a cut that exceeds your material depth.	LOW	LOW
Noise	User of the tool, users of the room.	LOW	Ear protection is recommended	LOW	LOW
Flying splinters or broken router bit	User of the tool, users of the room.	MED	Enclosure doors must be closed and secured while the machine is operating. Do not exceed the recommended feed and speed settings on the CNC Do not exceed recommended cutting depths Make sure that your material is free from foreign objects. Do not make a cut that exceeds your material depth.	LOW	LOW