

# Bristol Hackspace



## Safety Rules

Observe all safety instructions. Induction or Instructions are required for some of the machines. Ask someone for help, consult the wiki or message the forum when in doubt.

Ask for instructions if you are unfamiliar on how to use a tool. This is to protect you and to protect the tool. This is a shared space – consider others around you before using a machine; and be aware of others working nearby. **Leave the space cleaner than you found it.**

Make sure you know where the **emergency stops and fire extinguishers** are. In case of "call 999"-type emergencies, make sure there is someone at the door to let paramedics in. If you have to stay with the wounded, jam the doors open. Bring your key(card)s with you if you have to let emergency personnel in.



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by a machine. Consider that others may be working at the space – and you may be in close range of their machines too.



### Eye protection recommended

Also consider that hard-metal cutters and ceramics can suddenly shatter.



### Protective gloves recommended

But also: be careful with gloves – they can be caught in the machine and when made of a sturdy material, help rip your finger off.



### Wear appropriate footwear

No sandals or similar in the wood or metal shop.



### Wear a mask when needed

Especially when cutting materials such as MDF

### Ear protection recommended

If something breaks or is amiss – it is **your** responsibility to report it. If you find something broken – report it before using/repairing the machine.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.



# Template



## Safety Rules

Induction can be performed **online**. Complete the Induction to receive an unlock code. Make sure you lock up the machine after use!

**Induction in person** is required. Post on the forum to arrange this.

Report any use in the log - and **pay for it!**

Be sure to attach and power on the dust extractor. Move the gates to extract dust from your machine.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Wood Workshop



## Safety Rules

The wood shop is separated from the rest of the space for dust- and clean-tool control reasons.

**Keep wood-tools separate from other tools and free of (machining) oil.**

**Connect a shopvac/vacuum cleaner to keep the dust under control.**



### Keep the door to the main room closed

To keep the dust under control.



### Keep wood-tools separate

Try to keep wood- and metal-tools separate; the latter are often oily and can spoil others people work for a long time afterwards. Try not to do metal work in the wood shop.



### Ear protection recommended



### Eye protection recommended



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machines.



### Wear a mask when needed

Make appropriate use of dust extraction.



### Slippery surface

The wood room floor can get slippery if covered in wood - so keep it tidy!

**Try to leave the woodshop in a better state than you found it.**

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Leaving the Wood Room?



## These instructions are mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

Tidy up!



**Put everything back where it should be!**



**Leave it cleaner than you found it!**

Use the dust cart, it has a nice long cable :).



**Take your wood waste with you!**

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Pillar Drill

## Safety Rules



Do not attempt to change the drill speed, as the gearing is non-standard.

Make sure you clamp your workpiece well - to avoid spinning.

Be aware of other people around you (especially through the door to the main room).



### Eye protection recommended

Swarf will fly. Marterial can come loose.



### Do not wear gloves

Especially strong leather ones. They get caught easily and then 'help' ripping body parts off.



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### Crushing

Risk of crushing – the machine does not have any sensors that detect obstacles. The drill is operated by gears. They will not slip or stop.



### Respiratory protection is recommended

<https://wiki.bristolhackspace.org/equipment/woodshop/floor-standing-pillar-drill>

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Wood Lathe



## Induction is mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information. You must have completed an induction to use the machine.

This machine is for WOOD. See the wiki or internet for other materials.

**Induction in person** is required. Post on the forum to arrange this.

Be sure to attach and power on the dust extractor. Move the gates to extract dust from your machine.



## Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



## Wear a face shield

This is mandatory.



## Wearing a mask is recommended

Especially when sanding.



## Do not wear gloves



## Do Not Reverse

unless you know what you are doing. The grub screws on the chuck **MUST** be tightened.



## Spinning material

Risk of laceration and entanglement.



## Sharp tools in contact with spinning material

Tools could be caught and thrown.

[https://wiki.bristolhackspace.org/equipment/woodshop/woodturning\\_lathe/home](https://wiki.bristolhackspace.org/equipment/woodshop/woodturning_lathe/home)

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Mitre Saw



## Induction is mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information. You must have completed an induction to use the machine.

This machine is for WOOD only.

Induction can be performed **online**. Complete the Induction to receive an unlock code. Make sure you lock up the machine after use!

Be sure to attach and power on the dust extractor. Move the gates to extract dust from your machine.



## Wear ear protection



## Wear eye protection



## Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



## Wear a mask



## Automatic start-up

Risk of laceration and entanglement.



## Sharp rotating elements

So keep your fingers away. Bypassing or using your fingers to hold the guard open is downright stupid.

[https://wiki.bristolhackspace.org/equipment/woodshop/mitre\\_saw](https://wiki.bristolhackspace.org/equipment/woodshop/mitre_saw)

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.



# Table Saw

## Safety Rules



This machine is for WOOD only.

Let others in the room know before you start using it!

Induction can be performed **online**. Complete the Induction to receive an unlock code. Make sure you lock up the machine after use!

Be sure to attach and power on the dust extractor. Move the gates to extract dust from your machine.



**Wear ear protection**



**Wear eye protection**



**Wear protective clothing**

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



**Wear a mask**



**Do not wear gloves**



**Spinning material**

Risk of laceration and entanglement.



**Sharp rotating elements**

So keep your fingers away. Bypassing or using your fingers to hold the guard open is downright stupid.

<https://wiki.bristolhackspace.org/equipment/woodshop/tablesaw>

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Wood Bandsaw



## Induction is mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information. You must have completed an induction to use the machine.

This machine is for WOOD and PLASTIC only. There are three blade types in the hackspace:

1/4" for fine detail.

3/8" standard blade - this should be refitted when you have finished with another blade.

3/4" for cross cutting or resawing.

**Induction in person** is required. Post on the forum to arrange this.

Be sure to attach and power on the dust extractor. Move the gates to extract dust from your machine.



### Check the blade before use

Ensure you have the right blade fitted. If it has a kink, or is blunt, it should be replaced.



### Check the bearings before use

All 6 should be close to, but not touching, the blade. There are three below the table to check!



### Check the head adjustment is locked before use



### Wear ear protection



### Wear eye protection



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### A mask is recommended



### Do not wear gloves

Except when changing the blade.

<https://wiki.bristolhackspace.org/equipment/woodshop/bandsaw> Count fingers after use.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.



# Jointer

## These instructions are mandatory



Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

This machine is for WOOD only.

This machine does not have a dust collection nozzle. Ensure you clean up afterwards.



**Wear ear protection**



**Wear a mask**



**Wear eye protection**

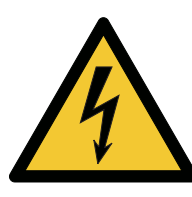


**Do not wear gloves**



**Wear protective clothing**

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



**Unplug transformer after use!**

It gets hot and burns out. The timer plug should prevent this, but unplug anyway.



**Sharp element**

This machine is effectively spinning knives with no guard.

<https://wiki.bristolhackspace.org/equipment/woodshop/jointer>

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Thickness Planer



## These instructions are mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

The Dust extractor is not strong enough to pull all of the wood dust from the Thicknesser hose, so you may need to manually empty this in to the bin.

Be sure to attach and power on the dust extractor. Move the gates to extract dust from your machine.



### Wear ear protection



### Wear eye protection



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### Wear a mask



### No reaching in

Don't stick your hands where you can't see them!



### Do not wear gloves



### Counterrotating rollers

This machine will 'pull' you in using counter rotating rollers. Which ALSO have a ratchet mechanism.

<https://wiki.bristolhackspace.org/equipment/woodshop/thicknesser>

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Wood Router(s)

## Safety Rules

This machine is for WOOD only.



**Wear ear protection**



**Wear eye protection**



**Wear protective clothing**

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



**Wear a mask**



**Entanglement hazard**



**Sharp rotating element**

There may not be a guard. Familiarise yourself with the risks and minimise them.

<https://wiki.bristolhackspace.org/equipment/woodshop/pdf1200d3> Other routers are also in the hackspace.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Belt and Disc Sander

## Safety Rules



Be sure to attach and power on the dust extractor. Move the gates to extract dust from your machine.



### **You can use the block of rubber to clean the belt and disc.**

It sits on the dust extractor tubes. Run the rubber over the belt and disc while it is running.



### **Wear protective clothing**

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### **Wear ear protection**



### **Wear a mask**

Warn others if you're sanding toxic wood.



### **Wear eye protection**



### **Fast spinning object**

Risk of entanglement

<https://wiki.bristolhackspace.org/equipment/woodshop/beltsander>

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Bins

## These instructions are mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

No Wood in the Bin! General purpose bin for Plastic, Sawdust, Metal, paper.



### Empty if full!

Empty in to the green bin outside and to the right of the building. Bags are in the consumables cupboard.



### No Glass, e-Waste, or food.

There are bins for glass and e-Waste. Take your food home.



### No Wood!

Sawdust is fine.



### No Fires

No, Seriously, Please don't put solid wood in here.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.



# CNC Room



## Safety Rules

All of the machines in this room (currently) require in person inductions.

**Induction in person** is required. Post on the forum to arrange this.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Leaving the CNC room?



## These instructions are mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.



**Ensure the CNC Laser is off and the PC locked.**

Take your skeletons with you.



**If you're leaving a print unattended - post on the Discourse long prints chat!**



**Ensure the 3D printers are locked out if not in use.**

If the bin is full - empty it. Spare bags are in the consumables cabinet, and the bin is outside > right > right.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# CNC Mill

## These instructions are mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

**Induction in person** is required. Post on the forum to arrange this.



### Wear eye protection

When the door is open.



### No wood or dusty materials. No ferrous metals (e.g. Steel)

unless you know what you're doing with steel.



### No reaching in



### Flying Debris Hazard



### Automatic start-up



### Sharp element



### Crushing of hands

<https://wiki.bristolhackspace.org/equipment/cnc/mill>

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# PCB Mill

## These instructions are mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

**Induction in person** is required. Post on the forum to arrange this.



**PCB must be securely fixed down.**



**Do not operate the spindle with the door open.**



**Keep hands away from moving parts during use.**



**Sharp element**

avoid touching the sharp bits when changing tools.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Laser Cutter

## These instructions are mandatory



Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

Do not leave the room while in use.

**Induction in person** is required. Post on the forum to arrange this.



### Do not use unless coolant temperature is below 24c

Wait for coolant to drop below 24c before turning off.



### flammable material

Everything that you're allowed to put in here is flammable. Be careful.

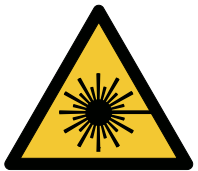


### No water or wet/damp materials



### Crushing of hands

The X,Y,Z axis do not have sensors, so they could crush your hands if you reach in while moving the gantry or table.



### Laser beam

This should turn off if you open the door early. But don't be stupid with it!

Do *not* add sharks to this laser cutter.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# 3D Printers

## These instructions are mandatory



Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

Try to remain in the hackspace during your print. If you start a print and need to leave, you **MUST** post on the forum. There is a chat group set up for this. Before printing, check for obvious faults. Before printing, check the print surface is clean and wipe with isopropyl alcohol. You may wish to use glue stick. If you need to stop the print, use the printer Stop function, not the emergency stop.

**Induction in person** is required. Post on the forum to arrange this.



### Always flush with PLA

after using with any other filament type.



### Do not change printer settings.

You can change print settings, but not printer.



### Do not exceed the extrusion temperature limit of 285c.



### Avoid using live-adjust Z function.

If you do, use no more than 0.2mm



### Wait until the printer has cooled to below 40c before turning off.

Use this time to clean up waste plastic.



### Hot surface and very hot extruder



### Crushing of hands

The machine does not know where your hands are. Be careful where you put them.

<https://wiki.bristolhackspace.org/equipment/cnc/prusamk3>

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Metal Pillar Drill

## Safety Rules



Make sure you clamp your workpiece well - to avoid spinning.

Be aware of other people around you.



### Eye protection recommended

Swarf will fly. Material can come loose.



### Do not wear gloves

Especially strong leather ones. They get caught easily and then 'help' ripping body parts off.



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### Crushing

Risk of crushing – the machine does not have any sensors that detect obstacles. The drill is operated by gears. They will not slip or stop.



### Respiratory protection is recommended

**Hints and Tips** Cutting oil is your friend. Drill a pilot hole using smaller bits, then work your way up in size. If you run out of bits on the wall, top up from the drill bit drawer. If the drawer runs out, check the consumables cupboard or order more. The hackspace will reimburse you. Sheet metal: Don't use a normal twist drill. Use a step drill instead. Ensure the work is well clamped.

<https://wiki.bristolhackspace.org/equipment/woodshop/floor-standing-pillar-drill>

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Metal Lathe

## Induction is mandatory



Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information. You must have completed an induction to use the machine.

Be careful when using the auto-feed; especially with cutters near the revolving head.



### Do not wear gloves

Especially strong leather ones. They get caught easily and then 'help' ripping body parts off.



### Eye protection recommended

Swarf will fly. Cutters can come loose. Broken cutters can fly very far and are razor sharp.



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### Crushing

Risk of crushing – the machine does not have any sensors that detect obstacles.

Note that it can also run very slow; barely noticeable.



### Slippery surface

Floor may get slippery when using coolant.

Clean after use – especially when you have used coolant or have used metals that can rust easily or cause a galvanic reaction.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.



# Large Grinder

## These instructions are mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### Eye protection needed



### Ear protection recommended

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Metal bandsaw

## These instructions are mandatory



Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

Use plenty of cutting oil, WD40 or similar.

Do not leave unattended (not in the least as you may want to keep lubricating it to get a nice cut).



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### Sharp rotating elements



### Eye protection recommended

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Metal bandsaw

## These instructions are mandatory



Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

Suitable for metal; hard wood and some types of plastics.



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### Ear protection recommended

Note also that this machine should not be used after 19:00 if it is that noisy



### Eye protection recommended



### Sharp rotating elements

Bypassing or using your fingers to hold the guard open is downright stupid.

Use of cutting oil recommended !

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Hembrug Drill press



## These instructions are mandatory

Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

Make sure you clamp your workpiece well - to avoid spinning.

Let the drill do its work - do not apply much pressure (drill gets dull or will snap).

Use the correct drill speed (higher for aluminium, low for steel, very low for stainless steel (RVS). Use the table on the wall.

Use drilling oil when needed (when in doubt - always use the green oil).



## Eye protection recommended

Sharp bits will fly, drills snap.



## Wearing gloves is forbidden

Especially strong leather ones. They get caught easily and then 'help' ripping body parts off.



## Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.

**Beware that this is a powerful, 3-phase (Krachtstroom), machine.**

So unlike the other pillar-drill - it won't stop if something jams.

Beware that the machine can start to spin if you press the green button while the rotary knob is set to 1 or 2.

Only use the emergency button on the front for emergency stops. For routine on-off use the rotary knob. De-energise the machine with the red button when you are done.

Noise wise – be considerate to our neighbours – especially in the evenings.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Drill & Mill

## Safety Rules



**Drilling:** Use with common sense, do not drill in the metal of the XY table! Use the wooden overlay to protect it.

**Milling:** Getting instructions **prior** to use is mandatory. After milling: put the machine back in order for drilling, so others can use it

**When changing the drillbit for milling: use a nylon hammerhead, do NOT use a metal hamer.**



### Do not wear gloves

Especially strong leather ones. They get caught easily and then 'help' ripping body parts off.

Very thin (latex) gloves that easily tear are ok.



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### Eye protection recommended

Especially when milling. Swarf will fly. Cutters can come loose. Broken cutters can fly very far and are razor sharp.



### Sharp rotating elements

This machine is essentially a cutter without any guard whatsoever.



### Slippery surface

Floor will get very slippery; especially when using coolant.

To adjust the height: 1) loosen the lower nut at the right back side of the machine (marked: 'deze moer' ). Then 2) use the big handle on the left side to crank up/lower the whole top part of the drill.

**And 3) fasten the nut again before drilling!**

For speed adjustment open the top and re-arrange the belts as shown on the diagram on the machine for the right speed. You can run these off/on the wheels by starting and ending with the larger of the two.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Metal Sander

## These instructions are mandatory



Read these instructions **prior** to use to prevent damage to you and the equipment. Check the wiki for more information.

This machine is for metal sanding - both ferrous and non-ferrous metals are allowed (until further notice).

**Connect a shopvac/vacuum cleaner to keep the dust under control.**



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.



### Wear a mask when needed

And keep the dust under control by connecting the vacuum cleaner or a shop vac. The grit is both unhealthy & damaging to other equipment.



### Ear protection recommended

Note also that this machine should not be used after 19:00 – it is that noisy!



### High speed abrasive surfaces

So keep your fingers away.

It takes metal away awfully fast.



### Eye protection recommended

Consult the WIKI (or ask) when you need to change the sanding belt. Report this on the mailing list.

Try to leave the machine in at least as clean a state as you found it. Likewise, if you 'gum up' the sanding belt (easy with for example soft aluminium) – do feel encouraged to replace it or at least warn the next user via the mailing list.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.

# Oscillating Band/Bobbin Sander

## Safety Rules



This machine is for WOOD only.

Make sure that the bobbin/band is fixed in position and cannot slip.

Let the sander do its work - do not apply much pressure (things will burn, you'll ruin the mechanics).



### Dust extraction mandatory

Use the dust extractor. Always.



### Wear a mask when needed

Depending on the wood being sanded.



### Eye protection recommended



### Wear protective clothing

Wear tight fitting clothing, keep long hair tied up, no jewellery or anything else that can be caught by the machine.

Noise wise – be considerate to our neighbours – especially in the evenings.

If a machine is not clean or appears broken, report it to the forum. Clean/fix prior to use.

**Report any damage, issues or accident within 24 hours to the forum.**

Notice something wrong with this poster? Suggest a change at <https://github.com/bristolhackspace/SafetySheetsMachines/> or request a change in the forum.