

# SMARTBENCH

Quick Start  
Guide v1.3



# Packing Checklist - Serial Number:

|                      |  |
|----------------------|--|
| Serial number labels |  |
| Remove build labels  |  |
| Clean                |  |
| Dust Shoe Plug       |  |
| Yeti Hat             |  |
| Unpacking doc        |  |
| Quick Start Guide    |  |
| Safety Instructions  |  |
| Safety Bond          |  |
| 6mm T Handle Driver  |  |
| USB Stick            |  |
| Power Cable          |  |
| Extraction Cable     |  |
| Extras               |  |

Checked:

Dated:

|                                                       |           |
|-------------------------------------------------------|-----------|
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# EU Declaration of Conformity



We, **Yeti Tool Limited** of Unit 12 Old Mill Road, Portishead, Bristol, BS20 7BX declare under our sole responsibility that the products:

|                        |                                              |
|------------------------|----------------------------------------------|
| <b>Product Name</b>    | SmartBench                                   |
| <b>Model Number(s)</b> | SmartBench V1.3                              |
| <b>Part Number(s)</b>  | 21321-21329, 21330-21332, 21339, 21491-21496 |

to which this declaration relates is in conformity with the essential requirements and other relevant requirements of EU Directive **2006/42/EC (MD)**, EU Directive **2014/53/EU (RED)** and EU Directive **2011/65/EU (RoHS2)**.

| Type                                              | Essential Requirements                                                                                                                                                                                                    |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Health &amp; Safety<br/>(RED article 3.1a)</b> | EN 62368-1:2014<br>EN 60950-1:2006+A1:2010+A12:2011+A2:2013<br>EN 62311:2008<br>EN 62061:2005<br>EN ISO 19085-1:2017<br>EN 60825-1:2014                                                                                   |
| <b>EMC<br/>(RED article 3.1b)</b>                 | ETSI EN 301 489-1 V2.1.1 (2017-02)<br>in accordance with the specific requirements of:<br>ETSI EN 301 489-17 V3.1.1 (2017-02)<br>EN 55032:2012/AC:2013 Class A<br>EN 55035:2017<br>EN 61000-3-2:2014<br>EN 61000-3-3:2013 |
| <b>Spectrum<br/>(RED article 3.2)</b>             | ETSI EN 300 328 V2.1.1 (2016-11)<br>ETSI EN 301 893 V1.8.1 (2015-03)                                                                                                                                                      |
| <b>RoHS2</b>                                      | EN 50581:2012                                                                                                                                                                                                             |
| <b>Other</b>                                      | EN IEC 63000:2018                                                                                                                                                                                                         |



United Kingdom 18th February 2019  
Authorised signature for and on behalf of Yeti Tool Ltd  
Ed Sells - Director

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Republic of Ireland  
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**IMPORTANT: This is a class 1 machine: the power supply MUST be earthed. Only use the power cable supplied. If you require a**

replacement, please contact your place of purchase.

# UKCA Declaration of Conformity



Manufacturer:  
Yeti Tool Ltd , Unit 12  
Old Mill Road, Portishead,  
Bristol, BS20 7BX, UK



|                        |                                                      |
|------------------------|------------------------------------------------------|
| <b>Product Name</b>    | SmartBench                                           |
| <b>Model Number(s)</b> | SmartBench V1.3                                      |
| <b>Part Number(s)</b>  | 21321-31, 21491-96, 21541-52, 21564-67, 21612, 21656 |
| <b>Specifications</b>  | [230 Volts, 6 Amps] or [110 Volts, 12 Amps]          |

This declaration is issued under the sole responsibility of the product manufacturer. The object of the declaration described above is in conformity with the relevant UK Statutory Instruments and their amendments: S.I. 2017 No. 1206 (The Radio Equipment Regulations 2017), S.I. 2008 No. 1597 (Machinery Regulations), S.I. 2012 No. 3032 (The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012). We hereby declare that the product described above, to which this declaration of conformity refers to, is in conformity with the essential requirements of the following designated standards:

| Type                                              | Essential Requirements                                                                                                                                                                                                    |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Health &amp; Safety<br/>(RED article 3.1a)</b> | EN 62368-1:2014<br>EN 60950-1:2006+A1:2010+A12:2011+A2:2013<br>EN 62311:2008<br>EN 62061:2005<br>EN ISO 19085-1:2017<br>EN 60825-1:2014                                                                                   |
| <b>EMC<br/>(RED article 3.1b)</b>                 | ETSI EN 301 489-1 V2.1.1 (2017-02)<br>in accordance with the specific requirements of:<br>ETSI EN 301 489-17 V3.1.1 (2017-02)<br>EN 55032:2012/AC:2013 Class A<br>EN 55035:2017<br>EN 61000-3-2:2014<br>EN 61000-3-3:2013 |
| <b>Spectrum<br/>(RED article 3.2)</b>             | ETSI EN 300 328 V2.1.1 (2016-11)<br>ETSI EN 301 893 V1.8.1 (2015-03)                                                                                                                                                      |
| <b>RoHS2</b>                                      | EN 50581:2012                                                                                                                                                                                                             |
| <b>Other</b>                                      | EN IEC 63000:2018                                                                                                                                                                                                         |

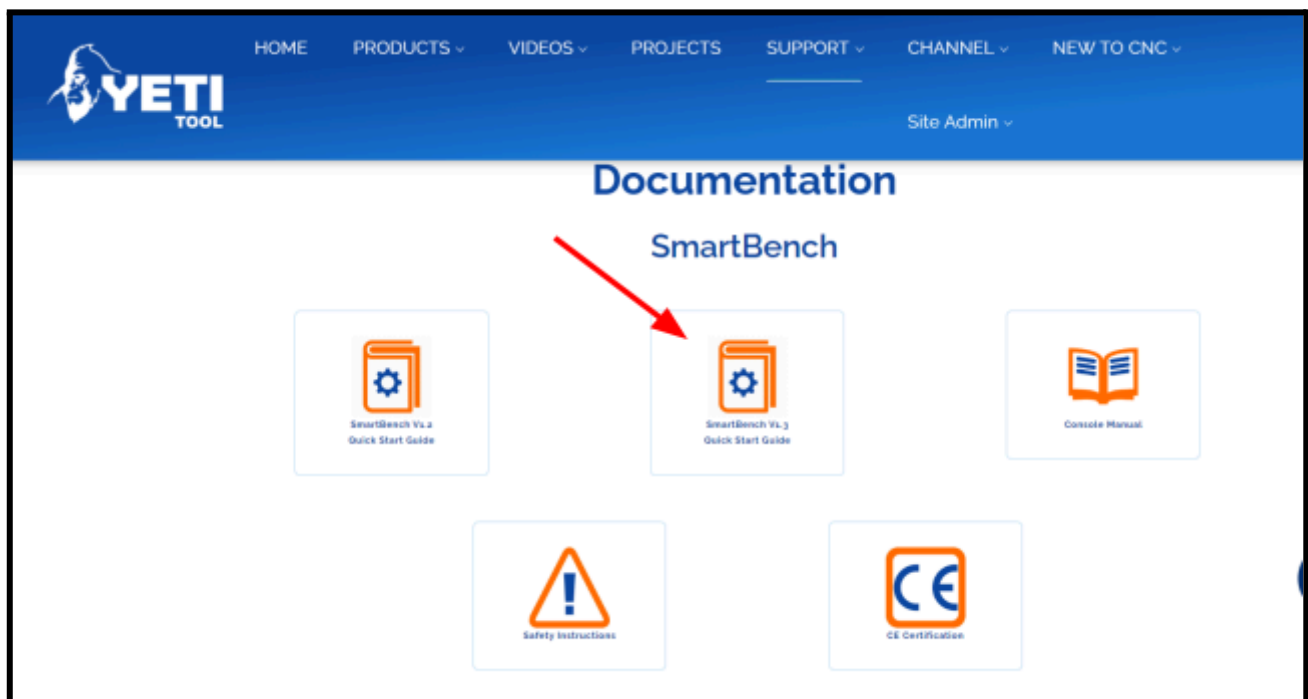
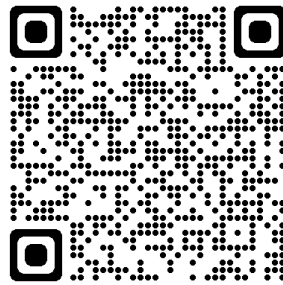
The technical documentation for this product is available from the manufacturer. Signed for & on behalf of the manufacturer, issued at the manufacturer's address, 11th October 2022, by Ed Sells, Director.



## Digital Version

As we include links on this guide - we also have a digital version available here

<https://www.yetitool.com/support/downloads>



## Video tutorial

Please note: all of the information in this Quick Start Guide can also be seen in a [video tutorial](#) on our Youtube channel in more detail.



## Yeti Tool Knowledgebase

[Knowledgebase](#) has all our original articles which can be used to troubleshoot any issues with SmartBench or learn more about best use examples.

## Yeti Tool CNC Academy

We've created [CNC Academy](#) to help those that may be new to CNC, or who just want to expand their knowledge. After the first setup, our courses will take you through everything you need to know, step by step, to cutting your first project.



# Thank you for purchasing SmartBench!

This quick start guide has been created to get you up and running with SmartBench as quickly as possible. For more guidance, please visit the [knowledge base](#) on our website.



## What is in the box

Start by getting familiar with key components of SmartBench

Please check the contents. If any of the above items are damaged or missing, please contact your point of purchase immediately.

|                                                                                     |                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Box 1</b><br>1 x Z Head assembly<br>1 x SmartBench Console<br>1 x Dust shoe plug | <b>Box 3</b><br>2 x Leg Set<br>1 x Spindle<br>1x IEC Power lead<br>1x Extraction power lead<br>1 x USB Stick<br>1 x Tool kit (Collet Spanner and 6mm hex)<br>1 x Wheel setting tool<br>1 x Console Safety Bond |
| <b>Box 2</b><br>1 x X Upper Beam<br>1 x X Lower Beam                                |                                                                                                                                                                                                                |
| <b>Box 4</b><br>1 x Y Bench                                                         |                                                                                                                                                                                                                |



# Key components

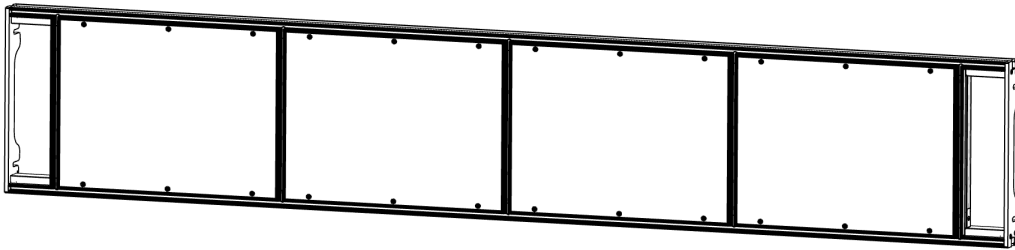


Figure 1: Y Bench

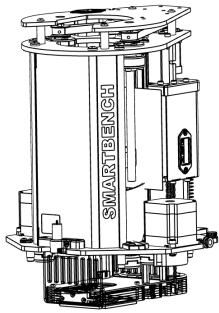


Figure 2: Z Head

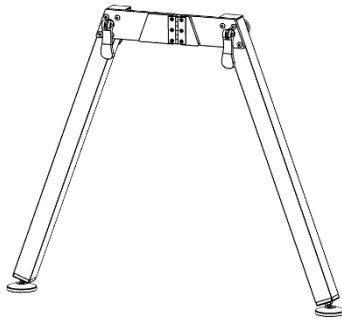


Figure 3: Leg Set (x2)

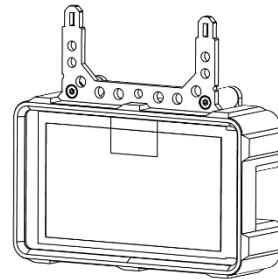


Figure 4: Console

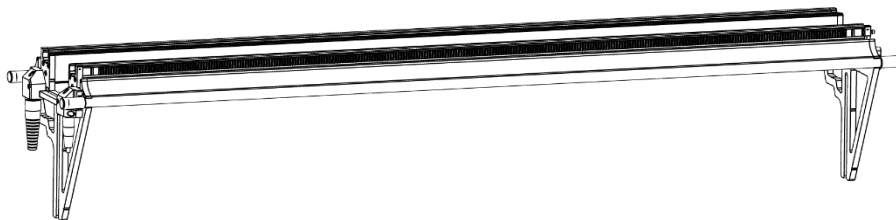


Figure 5: Upper X Beam

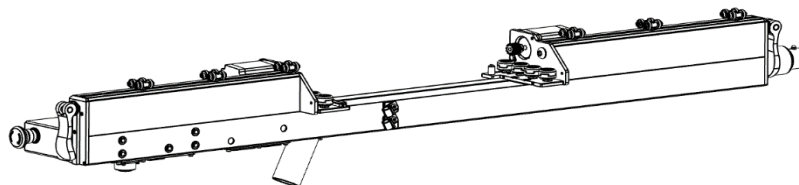
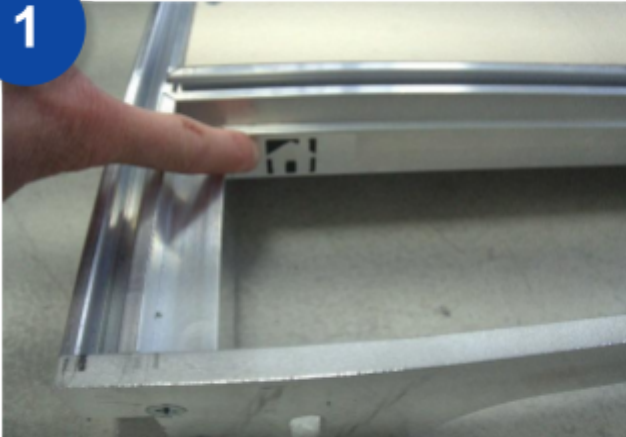


Figure 6: Lower X Beam

## Assembly

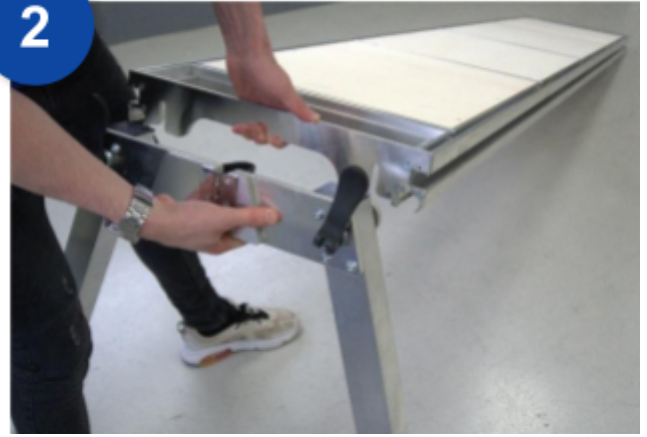
### Fit Leg Set 1 – Opposite from Home End

1



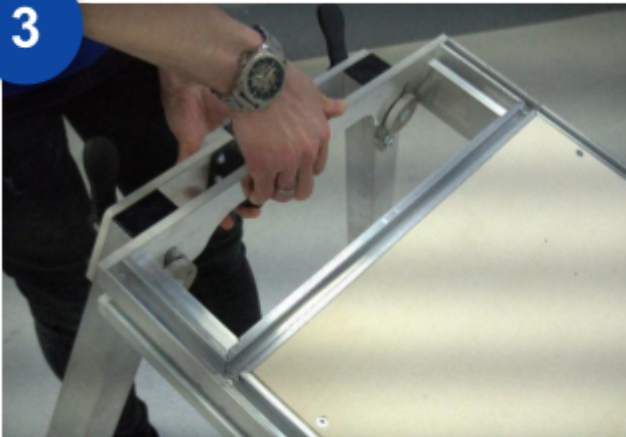
Identify the home end of the *Y Bench* by looking for the Home Icon.

2



At the **opposite** end of the bench, fit *Leg Set 1* by first unfolding the legs.

3



Lift the *Y Bench* to accept the location pins of the *Leg Set*. Slide the leg clamp pins into the slots in the *Y Bench* end plate.

4

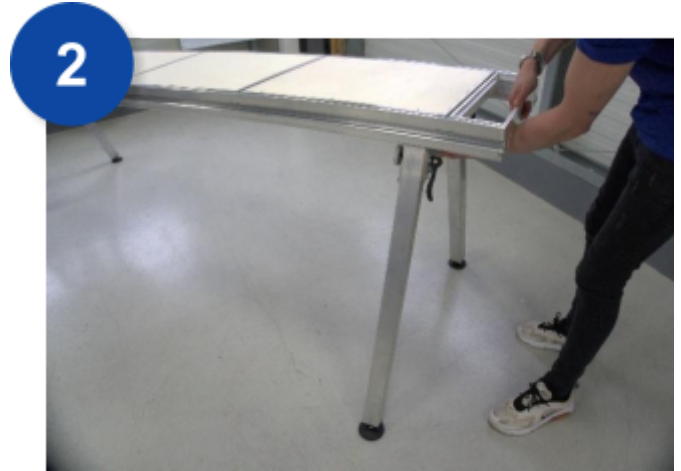


Push the clamp handles down to the *Y Bench* end plate to tighten. They are designed to not sit perfectly flat to give room to unclamp.

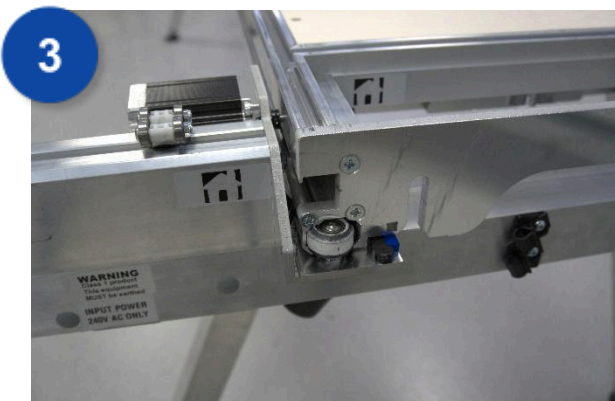
## Fit the Lower X Beam



Unfold the home *Leg Set*. Lift the *Y Bench* at the home end.



Use the leg set to support the *Y bench*. This should be just past the first crossbeam.



To fit the *Lower X Beam*, offer up the beam ensuring the home labels are aligned.



Ensuring the wheels align with the channels, push *Lower X Beam* onto the *Y Bench*.



You should feel some preload on the wheels as they pop into place.



Push the *Lower X Beam* onto the *Y Bench*. The assembly should look like this.



## Fit Leg Set 2



Lift the *Y Bench* by the end plate, and take *Leg set 2* with the other hand.



Lift the *Y Bench* to accept the location pins of the *Leg Set*. Slide the leg clamp pins into the slots in the *Y Bench* end plate.

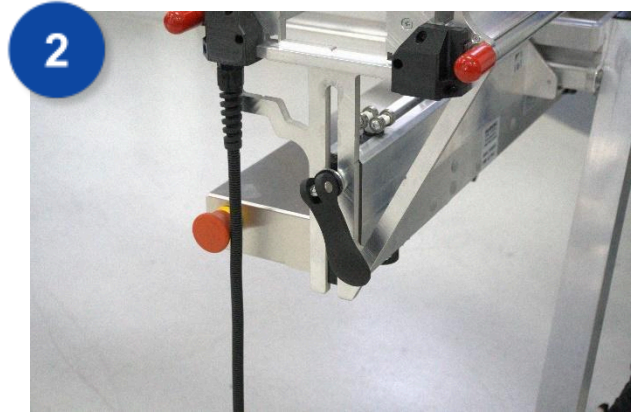


Use the clamp handles to attach the bench to the legs

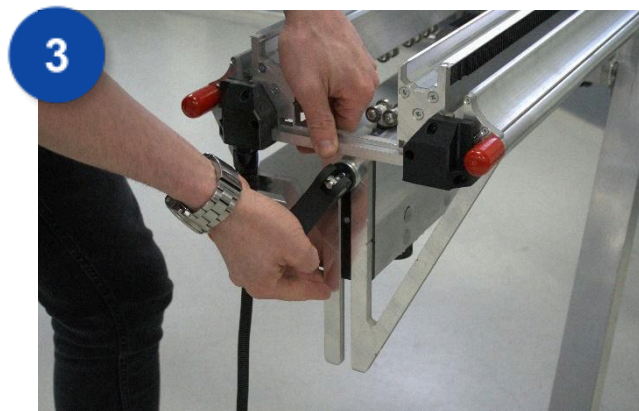
## Attach the Upper X Beam



Slide the *Upper X Beam* onto the *Lower X Beam* as shown above.



The forks on the end of the *Upper X Beam* should slide on the skids of the *Lower X Beam*.



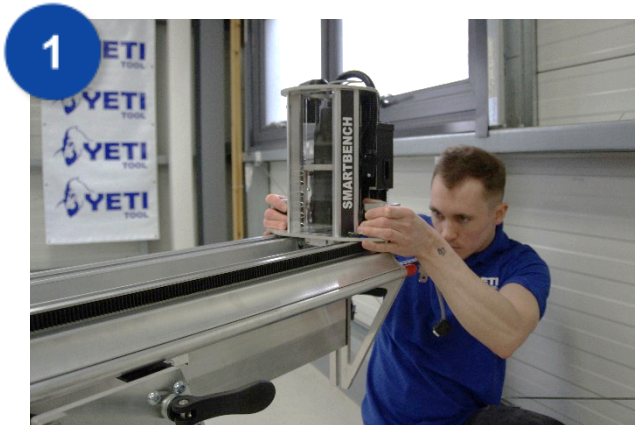
Secure in place by tightening the clamps on each end of the beam.



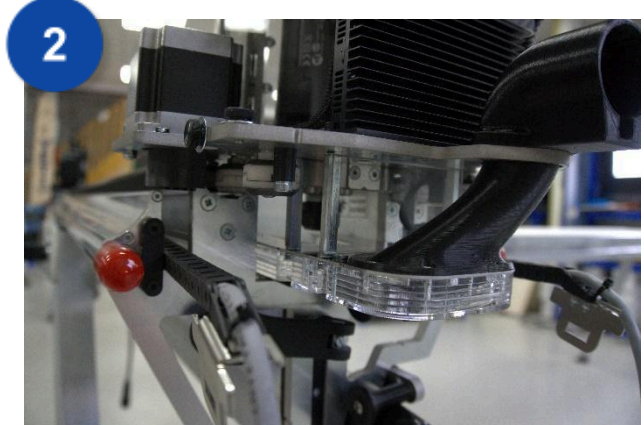
Slide the cables by the drag chain latch plate so that they are laid flat and extend from the end of the *Upper X Beam*



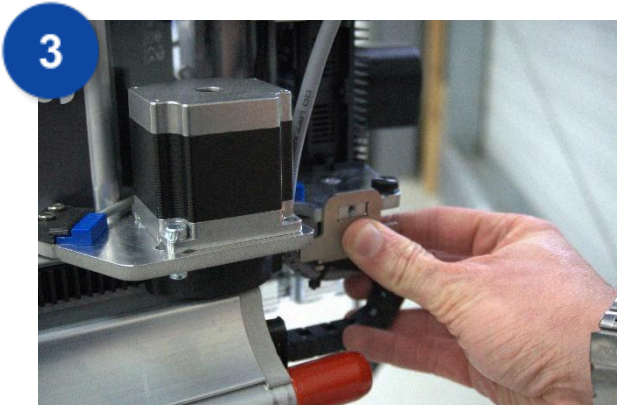
## Fit the Z Head



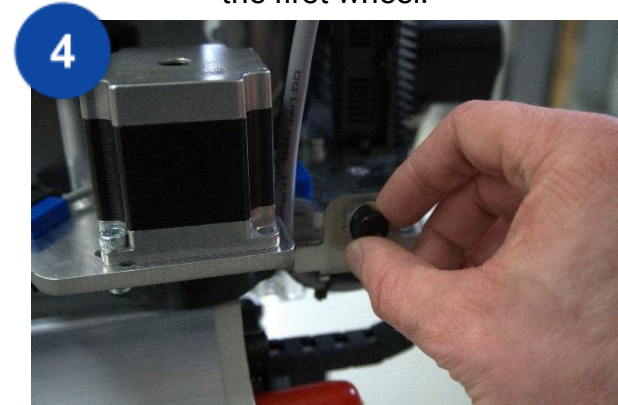
To Fit the Z Head, offer up the Z Head ensuring the extraction elbow is facing towards you.



Load the Z Head by inserting the wheels into the channels until the Z Head holds onto the beam. This should be just passed the first wheel.



Place the drag chain latch plate over the rectangular face on the side of the Z Head bottom plate ensuring the signal cable seats into the recess.



Secure this in place with the thumbscrew provided.



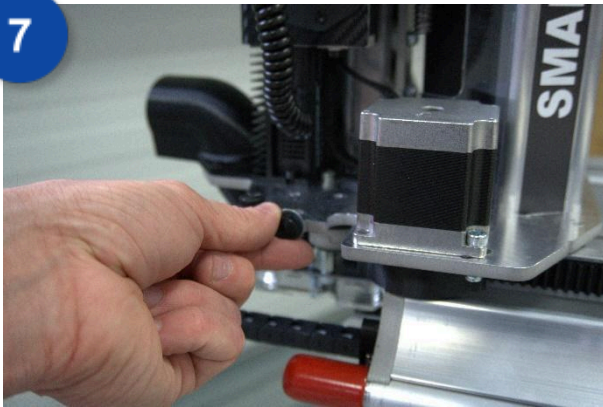
Plug in the signal cable and secure it with the thumbscrew.



Place the drag chain latch plate over the protruding face on the side of the Z Head.

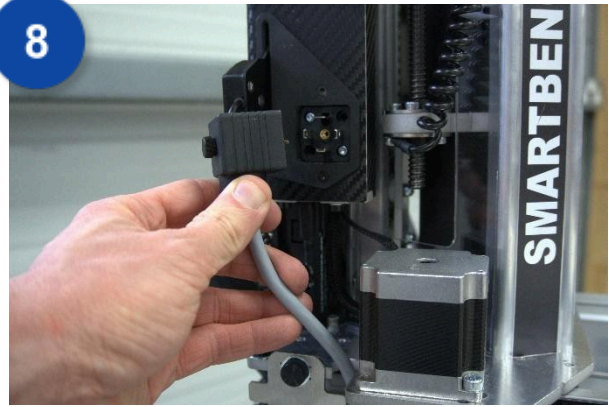


7



Secure this in place with the thumbscrew provided.

8



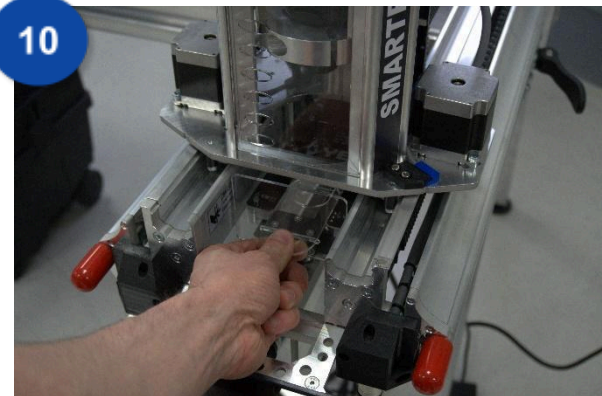
Plug in the power cable and secure it with the thumbscrew.

9



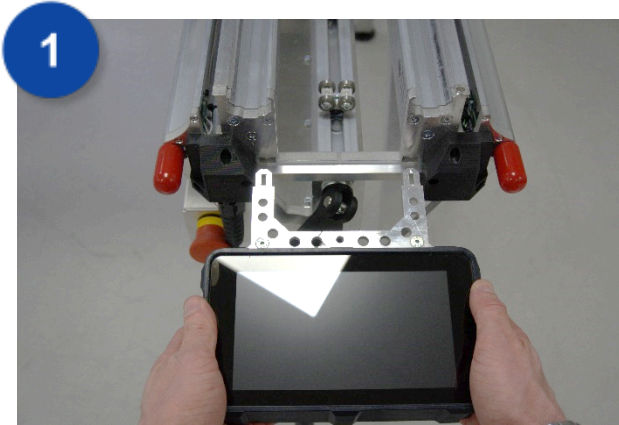
You can now push the *Z Head* onto the *Upper X Beam* until all wheels are engaged. If you do not push the Z-Head further onto the Upper beam the motors will not be engaged with the rack.

10



Fit the dust shoe plug into the front of the dust shoe. This can be made easier when it is over the bench so you have a flat surface as a base.

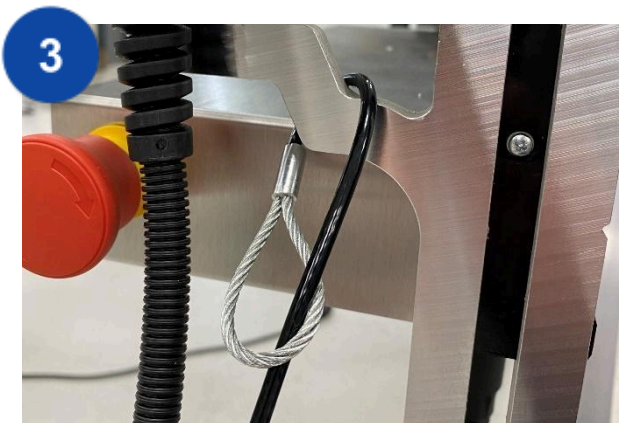
## Fit the Console



The Console attaches to the end of the *Upper X Beam* by locating the 2 forks into the end plate. Ensure the forks are inserted fully.



Plug the console cable into the XLR connector as shown above.



The safety bond is to loop through the end plate on the lower beam.



This attaches to the console mounting bracket using the carabiner.

**Note: We include a safety bond for the console in the box. This is not mandatory, however YetiTool Ltd will not be held responsible for any console breakages.**



## Fit the Link Cable



The link connector connects to the socket on the underside of the *Lower X Beam*.

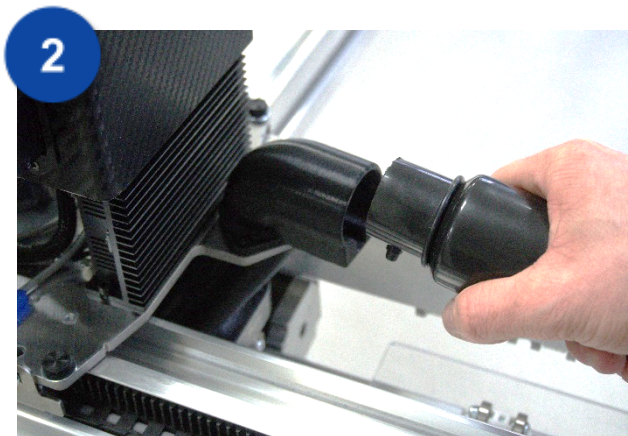


Plug the cable into the connector and rotate the cuff clockwise to secure it.

## Fit the Extractor hose (PrecisionPro, PrecisionPro +)



Attach the extraction hose to the underside of the *Lower X Beam*



Attach the extraction hose to the *Z Head* by inserting the connector into the elbow and rotating clockwise.

## Fit the Extractor hose (PrecisionPro X)

For instructions on how to fit the hose to the BigFoot dust shoe, please refer to the document within **BOX 5**.

## Fit the Extractor power leads

SmartBench has a dedicated power outlet for extractors, to automatically switch your extraction on or off, **but** the extractor must not draw more than 13 amps. If the extractor draws more than 13 amps, the extractor must be powered from a separate power outlet and operated manually.



Either: Power your extractor via SmartBench - connect the mains supply to the extractor input on SmartBench *Lower X Beam* using the supplied cable ... and plug the supplied extension cable to the output socket to connect to your extractor ->



(To power your extraction automatically you need both the input and output cables plugged in - The input cable powers the output through a relay which switches on and off as required)





OR: Plug in your extractor to a separate power outlet to use manually

## Fit the SmartBench Power Cable



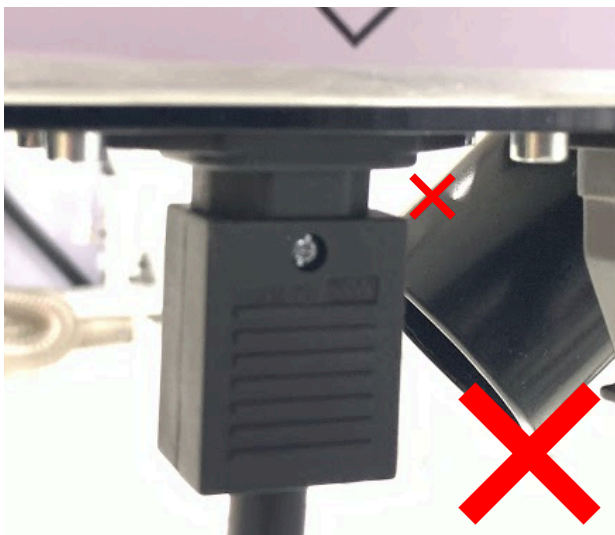
The machine power cable input is on the underside of the *Lower X Beam*.



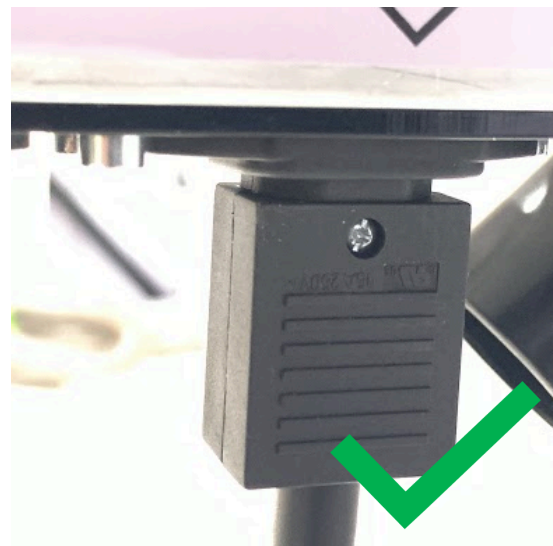
Plug the cable into the connector on the underside of the *Lower X Beam*.

## Correct fitting of cables

Make sure that all cables are **fully** inserted.



Incorrect fitting

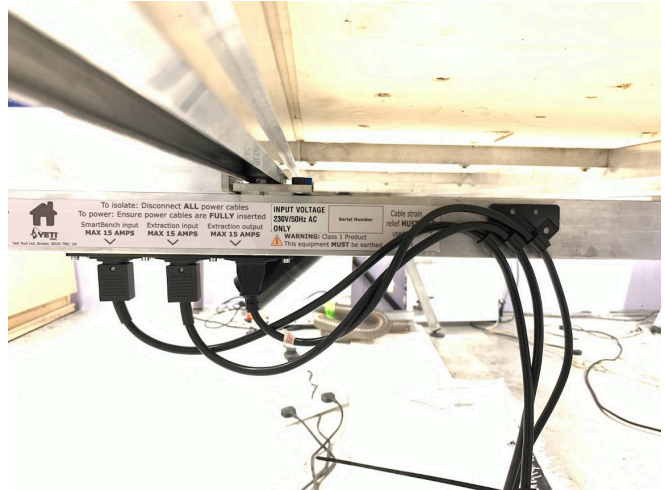


Correct fitting

## Strain relief



Ensure cables are correctly fastened into the strain relief clips on the Lower X Beam



Using the strain relief correctly will ensure the cables cannot be removed during operation in case of a pull or snag. Keep everything under the machine clear to prevent any catches with the cables.

## Check cable connections

Check that all cables are connected correctly and securely:

1. Z Head Signal
2. Z Head Power
3. X Beam Link connector
4. Extraction power input (if using the auto-extraction system)
5. Extraction power output (if using the auto-extraction system)
6. Console XLR
7. Mains Power

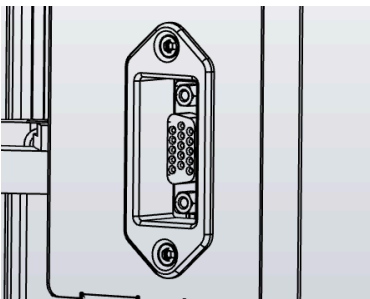


Fig 1: Z Head signal

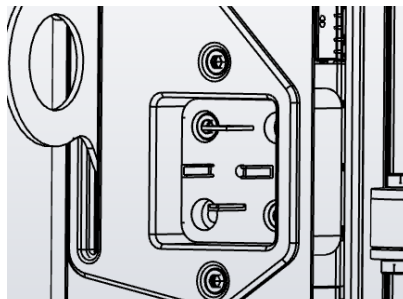


Fig 2: Z Head power

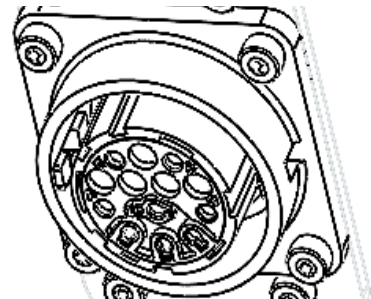


Fig 3: X beam link

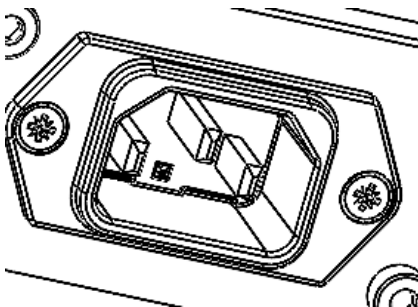


Fig 4: Extraction power input

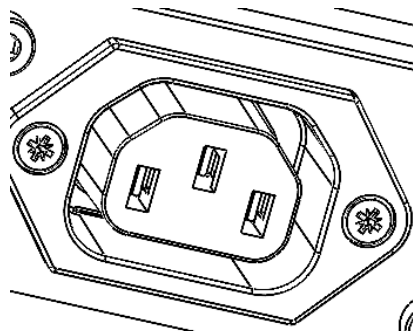


Fig 5: Extraction power output

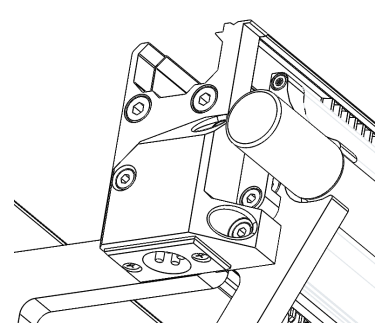


Fig 6: Console socket

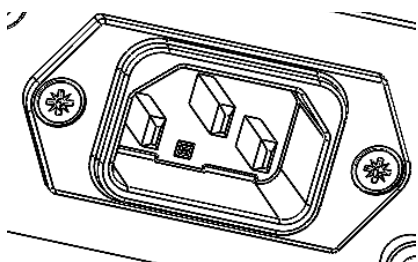


Figure 7: SmartBench power



## Turning on SmartBench

When the above instructions have been followed correctly, SmartBench can now be powered on by releasing the Emergency stop button. To release the button, it must be twisted clockwise.

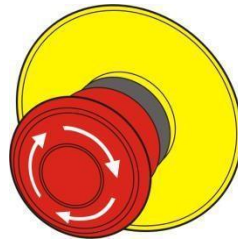
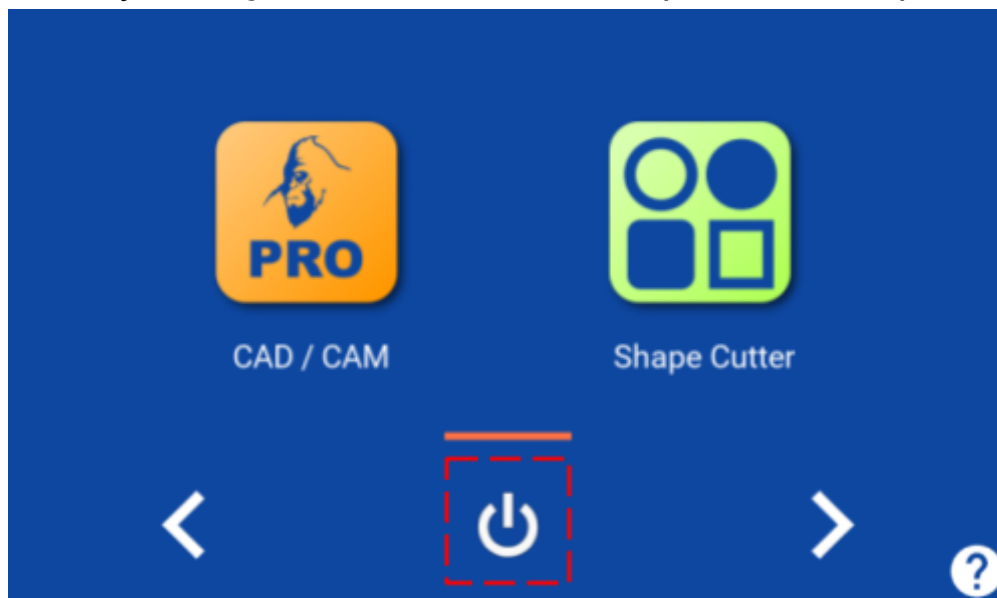


Figure 14: E-Stop Button

## Turning off SmartBench

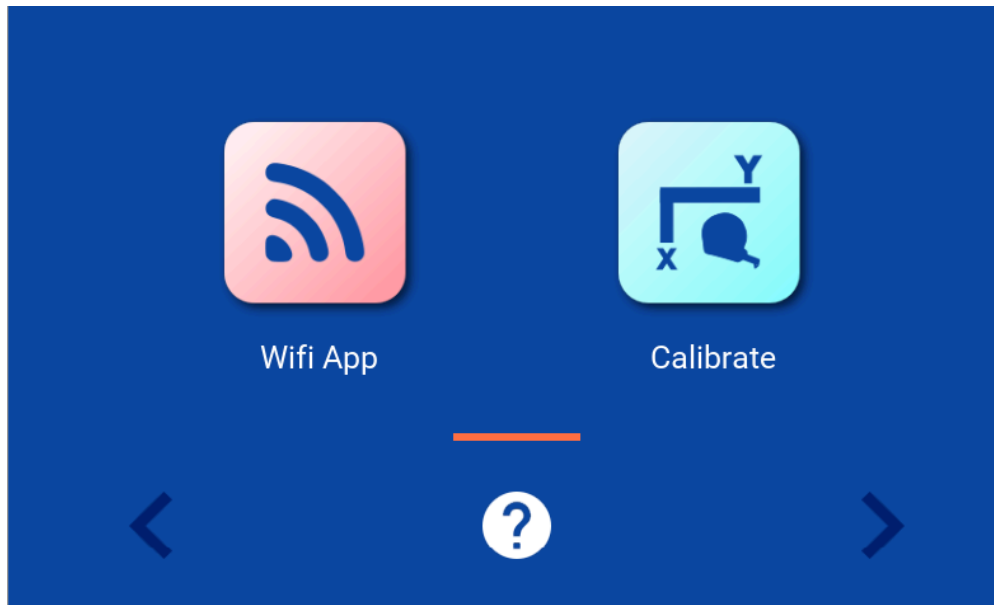
When you are done with Smartbench - Turn the console off from the power button first to prevent any damage then after 60 seconds push the E-stop button inwards.



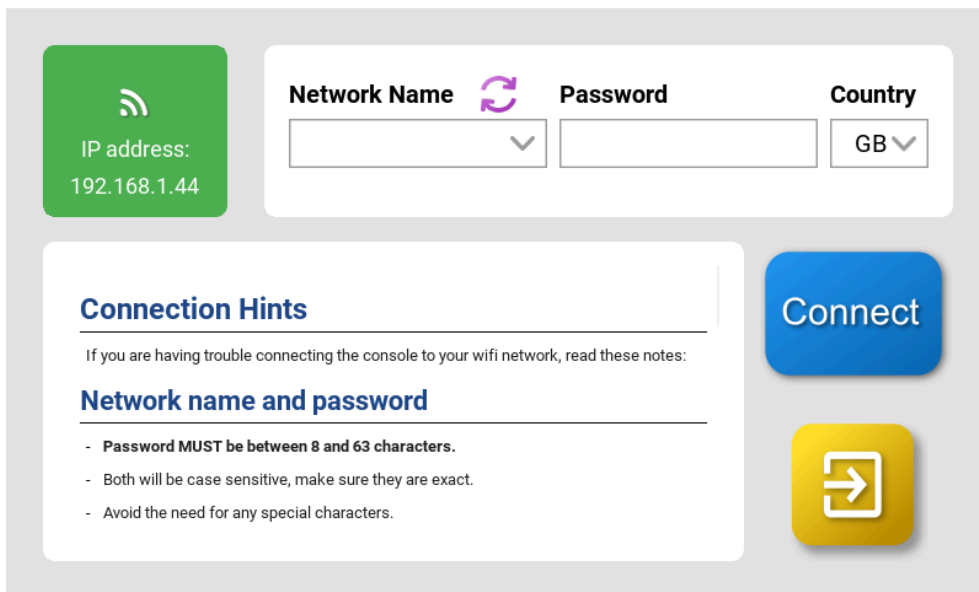
## Connecting to Wi-fi

Connecting SmartBench your local network gives the following functionality:

- Software updates
- File transfer via your Wi-Fi network



1. Navigate to the Wi-Fi app in the main lobby

The image shows a Wi-Fi connection screen with a light gray background. On the left, there is a green rounded square button with a white Wi-Fi icon and the text 'IP address: 192.168.1.44'. To the right of this button is a white rounded rectangle containing three input fields: 'Network Name' with a purple refresh icon and a dropdown arrow, 'Password', and 'Country' with a dropdown arrow showing 'GB'. Below these fields is a white rounded rectangle with the title 'Connection Hints' and a scrollable list of notes. To the right of the hints box is a blue rounded rectangle with the text 'Connect' and a yellow rounded square button with a white right-pointing arrow inside a square. The 'Connection Hints' section includes the text 'If you are having trouble connecting the console to your wifi network, read these notes:' followed by the title 'Network name and password' and a list of three bullet points: '- Password MUST be between 8 and 63 characters.', '- Both will be case sensitive, make sure they are exact.', and '- Avoid the need for any special characters.'

## 2. Select your network

- Use the refresh button to update the list
- Touch on the network name box drop down
- Select your network name from the list

## 3. Network Password:

- Touch on the password box
- Enter your network password

## 4. Connect to Wi-Fi:

- Close the keyboard using the  button in the lower right corner
- Press the connect button

**Please note the system will then automatically restart.**

**The console screen will go black as the console restarts – this is normal - do not power the machine down during restart.**

# Status LED's

The LED's on the bottom of the Z Head indicate the status of SmartBench.

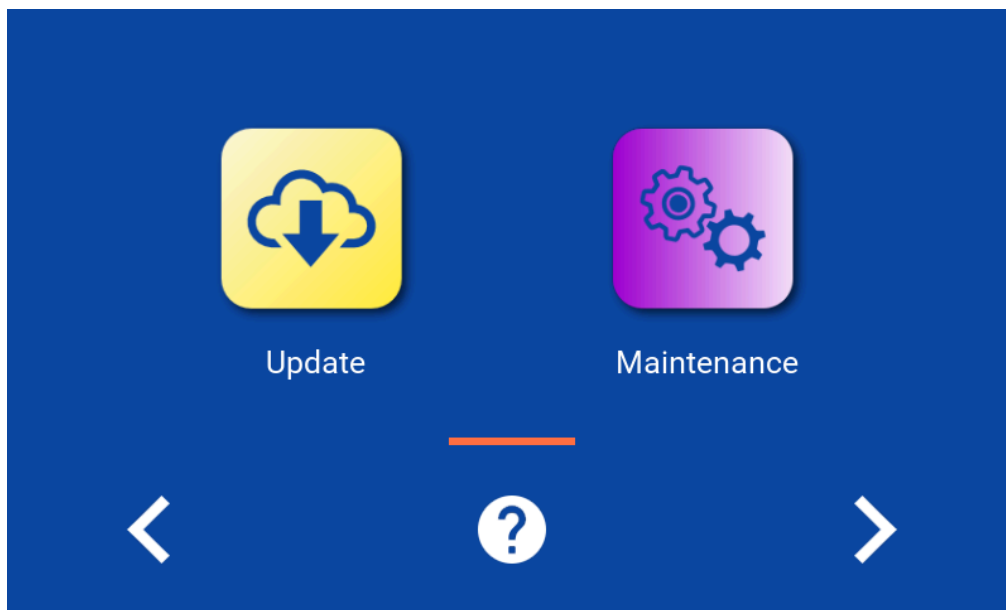
Green – Status is good, a job is running, no action is to be taken

Yellow – SmartBench needs to be homed, action needs to be taken.

Red – SmartBench is in an alarm state, action needs to be taken.

# Update software

To complete the setup, update the software.



You will find the software update button in the lobby. You can update the software either via Wi-Fi or USB

## Updating via Wi-Fi

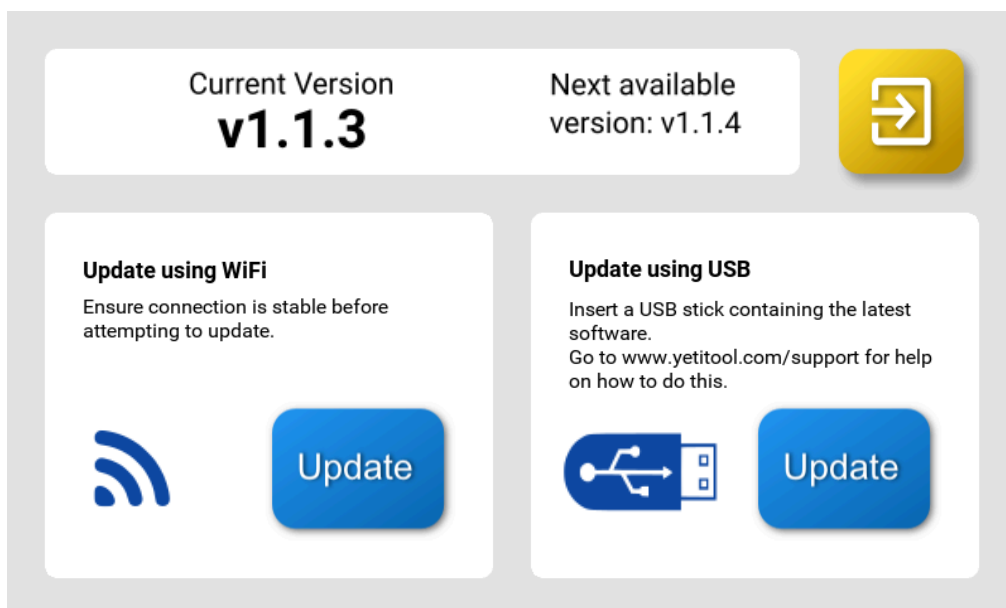


Photo used for reference your update number may change.

Ensure you have a stable Wi-Fi connection and press the update button.

The system will automatically connect to our server, download, and update the latest version, **and then reboot.**



It is important to note:

- None of your job files will be touched, and
- The last set datum or park points will be retained

## Updating via USB

1. Download the latest version of software from our website:  
[www.yetitool.com/support/downloads](http://www.yetitool.com/support/downloads)
2. Save the file into the root of your USB stick
3. Insert the USB into the console and press update

The system will automatically update the latest version of, **and then reboot.**

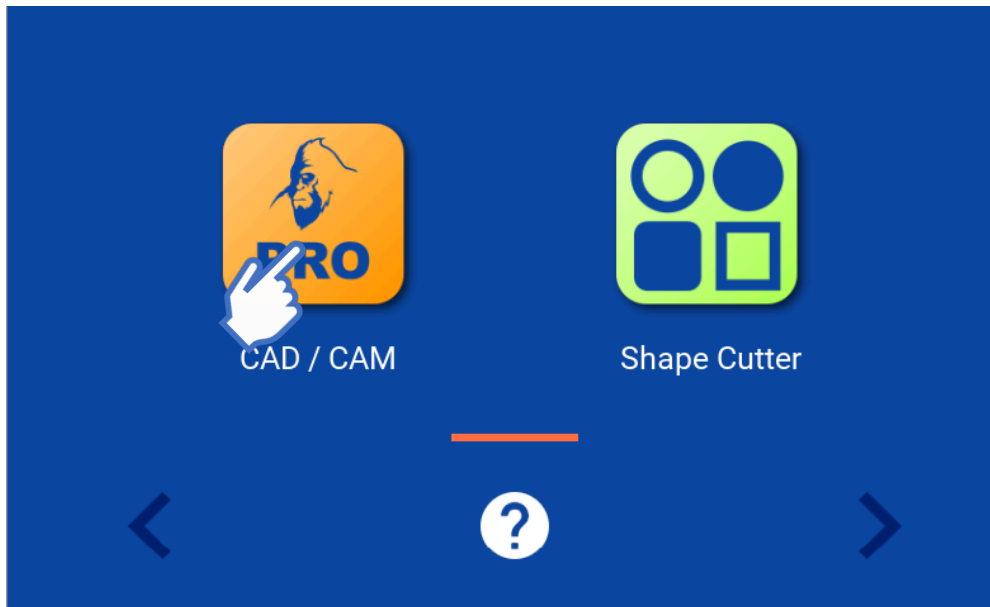
It is important to note:

- None of your job files will be touched, and
- The last set datum or park points will be retained

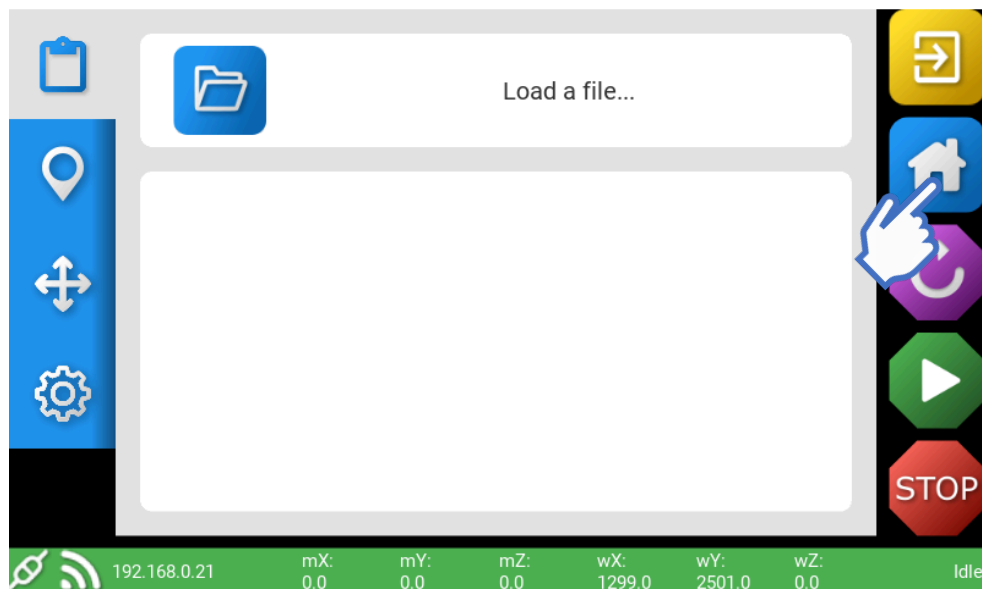
If you have any issues updating please submit a support ticket.

# Homing SmartBench

1. From the Lobby screen press to go to CAD/CAM operation



2. Press the home button. The home button will appear on all screens



- You have the option to either square SmartBench manually or use the auto-square feature. Please see details of each feature below:

## Manual Square

Before power up, the user manually pushes the X beam up against the bench legs at the home end. The power is then switched on. The motor coils lock the X beam into position with a high degree of reliability. Thus, mechanical adjustments to square the beam can be repeated.

## Auto Square

No special preparation from the user is needed. When homing, the lower beam automatically drives into the legs to square the X beam against the bench legs. The stalling procedure can offer a general squareness. But at the end of the movement, the motor coils can bounce into a different step position. Thus, mechanical adjustments to square the beam can be repeated less reliably than manual squaring.

# Transferring a file:

You have three options:

- Via [Smart Transfer](#)

The Yeti Tool SmartTransfer app allows you to quickly transfer job folders and files from your PC computer to your SmartBench, via the wifi network

- Via [USB](#)

You can transfer files via a USB stick directly from your computer

- Via the legacy [Filezilla](#)

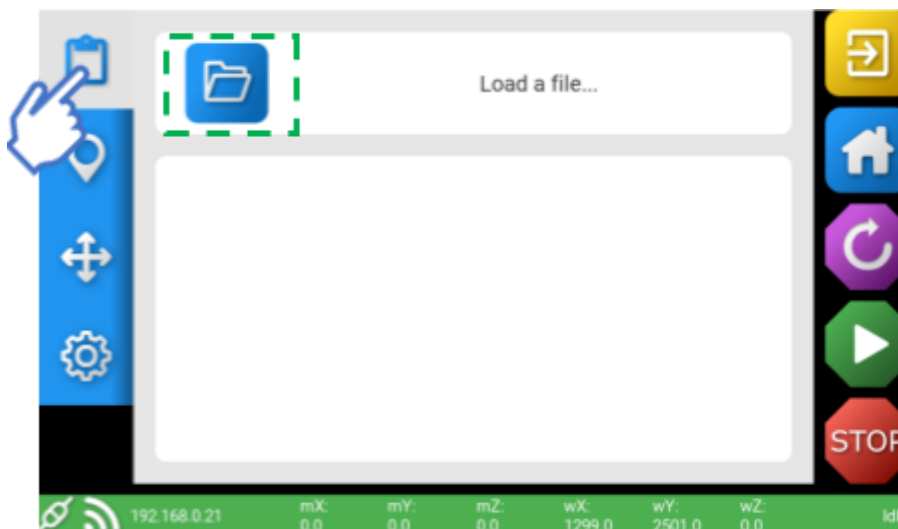
FileZilla is our legacy format and while slower can still be used if required to send job files directly to the SmartBench console from your computer via your Wi-Fi network

The only file types visible on the console are .nc files and .gcodes

Note any . in your filename will confuse the console for example (my.cut.file.gcode) will not be visible

## Open a file

1. Go to Job screen
2. Press the file explorer (Green)





3. Choose your file (The ones below are just examples and won't be on your console)
4. Accept your file choice (Green)



## Set X/Y datum

The X/Y datum refers to the point at which you have set your datum in your file. This is set by moving the cutter to the intended point and setting the datum to that position.

1. Go to Move Screen
2. Note that double presses of the arrows will send the machine in that direction infinitely. The  $\infty$  icon can be pressed to change the distance moved to an exact figure.
3. Move the X Axis (Red)
4. Move the Y axis (Green)

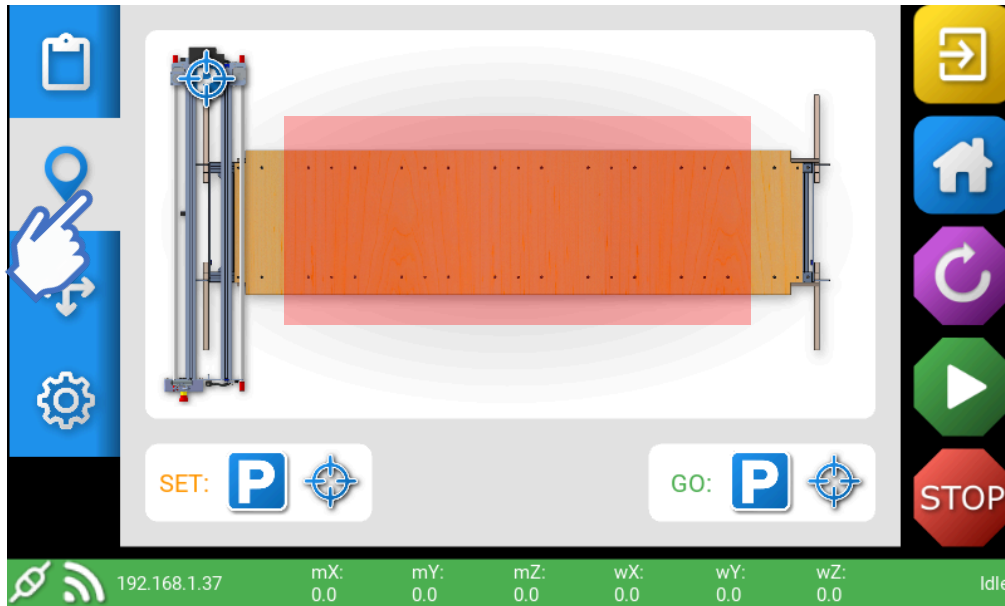


5. Set the job start point, the Z-Head LED will flash GREEN to confirm



Check that your job location fits within SmartBench's bounds:

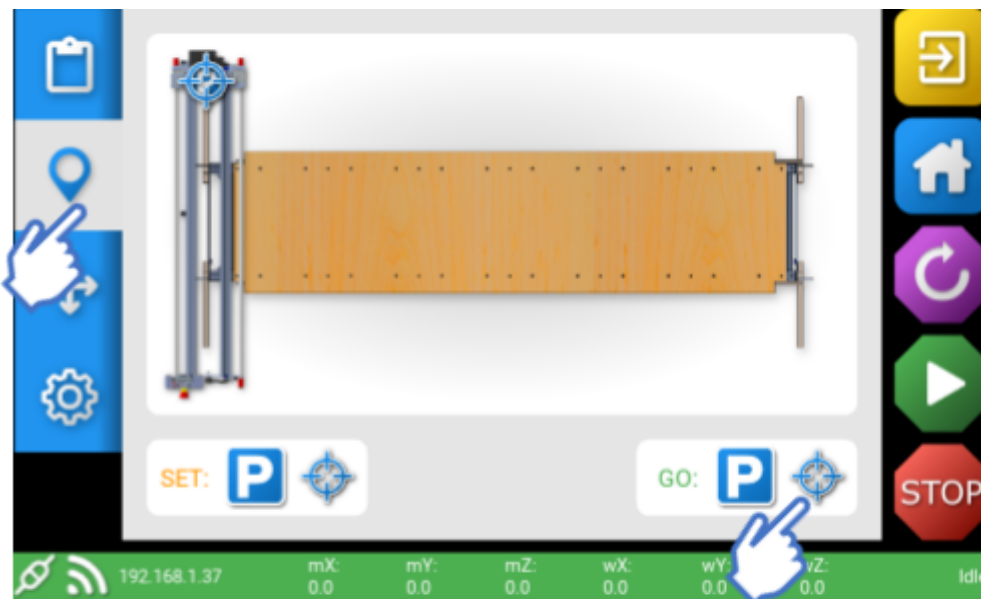
6. Go to Map screen 
7. Make sure the X/Y Datum  is in the right position and your job does not reach beyond the extents of the X/Y space.
8. If not, repeat the previous steps to reposition the datum.
9. If you cannot see the red box in the map screen check that you are exporting in MM rather than inches. Only export your job files in MM.



## Set Z datum (start point for the job)

Once the X/Y datum is defined, the tip of the router cutter needs to be registered relative to the material. This is referred to as setting the Z datum and should be done near the X/Y datum. Start by going to the X/Y datum:

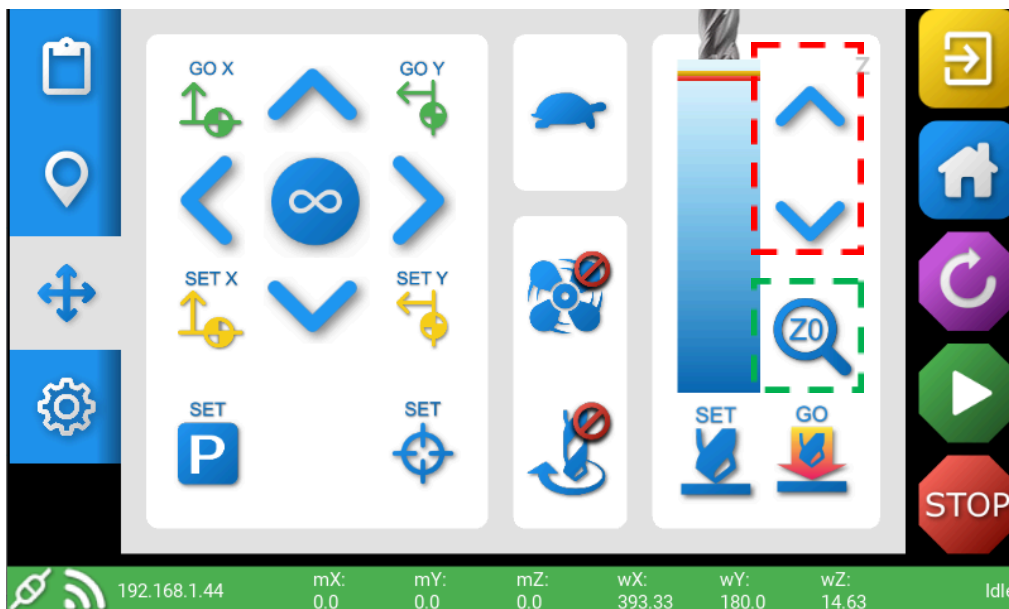
1. Go to the Map Screen
2. Press 'Go to X/Y Datum' to place the Z Head at the X/Y datum



Now you need to place the cutter at the height you want your Z datum (typically either the top or bottom surface of the material, depending on the job).

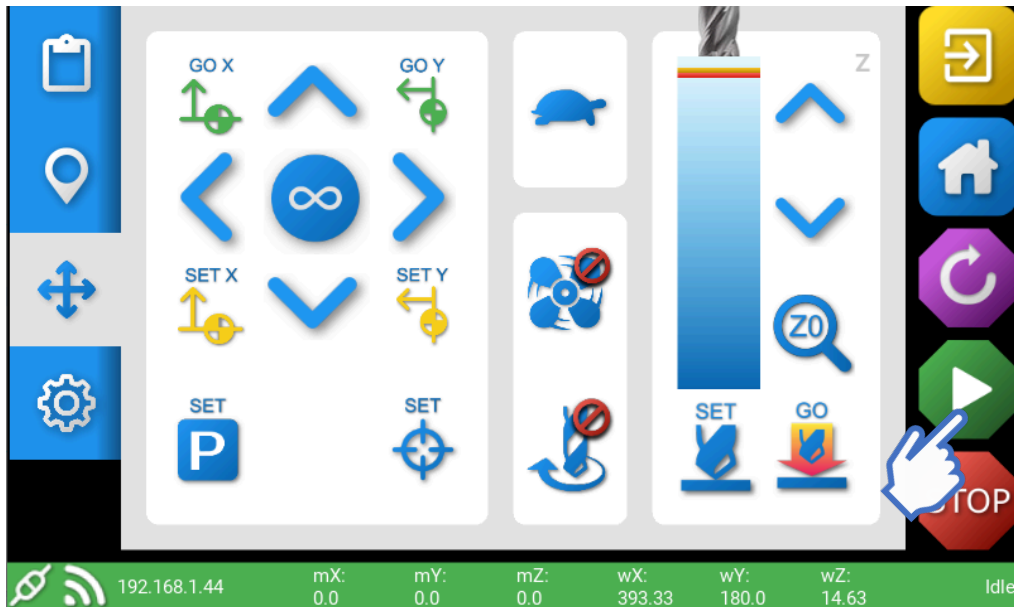
To set the Z height with the Z probe:

1. Go to the Move screen.
2. Take out the Z probe plate from its holder on the side of the Z-Head
3. Remove the dust shoe plug
4. Place the Z probe plate directly below the cutter tip.
5. Make sure the back of the probe plate lies flat on the surface you are trying to probe. The probe plate should be silver side up.
6. If the tip of the cutter is not close to the top of the stock, manually move it downwards to about 10mm (3/8") away from the probe using the Z down button (Red) in the picture below. Take care not to overshoot!
7. When close, press the 'Z0' button (Green) The Z Head will automatically lower slowly until the tool tip touches the probe plate (on touching, an electrical circuit is closed, the software remembers this position, and subtracts the thickness of the probe plate).
8. When the cutter retracts, the Z datum is set. The Z-Head LED will flash GREEN

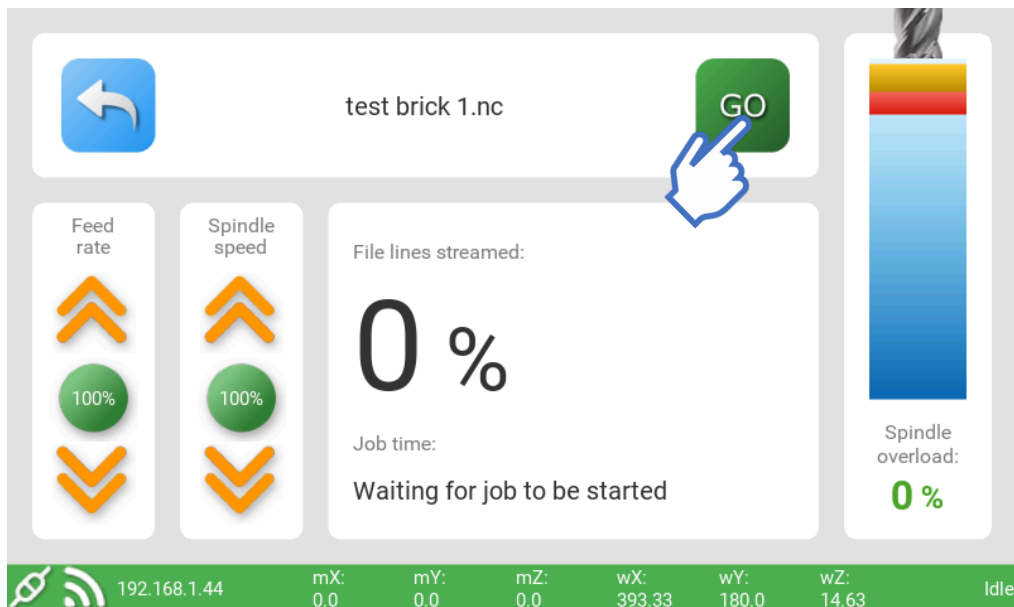


## Run job

1. To run your job, press the play button.



2. Confirm you wish to run your file by pressing the 'GO' button

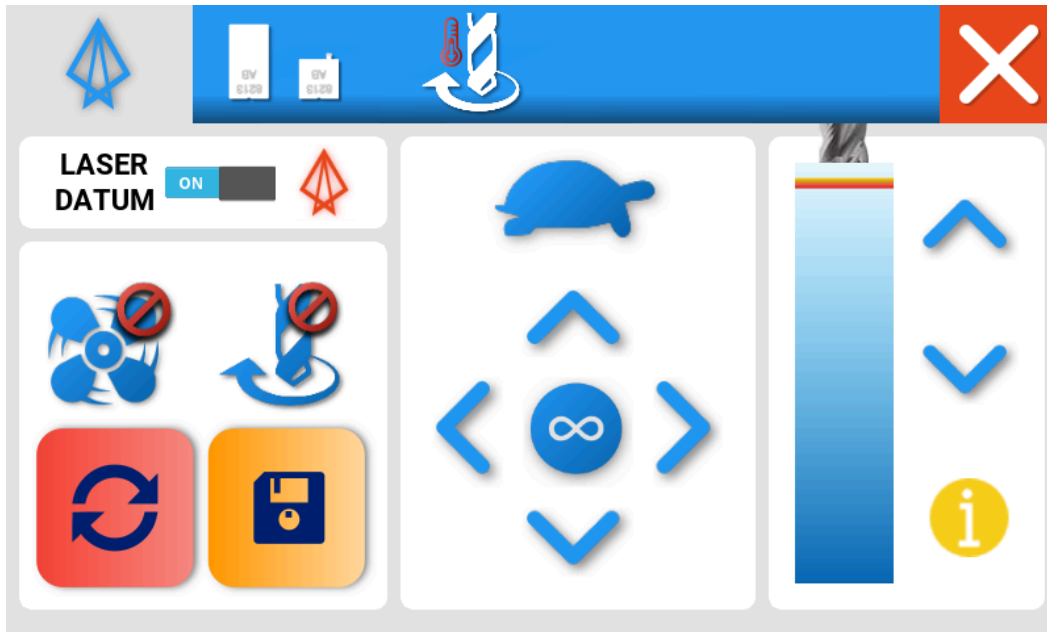




## Setting the laser datum

If you have the laser datum fitted, then you can use the laser datum tab in the maintenance app to adjust and turn on your laser datum crosshair offset

The offset will allow SmartBench to accurately calculate the distance in X and Y between the centre of your tool and the crosshair.



To set if laser hardware is fitted:

1. Enable laser datum (Switch to **on**)
2. On a test piece of material, cut a mark using manual moves. We would recommend using a v-groove bit for higher accuracy
3. Lift head and press the reset button in the bottom left
4. Move the Z Head in the X and Y axis using the arrows so that the laser cross hair lines up with the mark centre
5. Press **Save**

Your laser datum offset will then be saved into the system. You can reset this by repeating the steps above.

**More details are available in this [video](#)**

# Removing and Replacing a Spindle

This guide uses the SmartBench Precision as an example, which includes a grey speed control cable as well as the power cable. You can ignore references to this wire if you have the Standard version of SmartBench.

To change the spindle, you will want to move the Z Head closer to the X0(X home) position for easier access. To do this, use the arrows highlighted below (red) to move the Z Head along the X axis.



You will need:

6mm hex driver (this is provided with your SmartBench)



## Step 1: Disconnect cables

Disconnect the spindle power cable and speed control cable

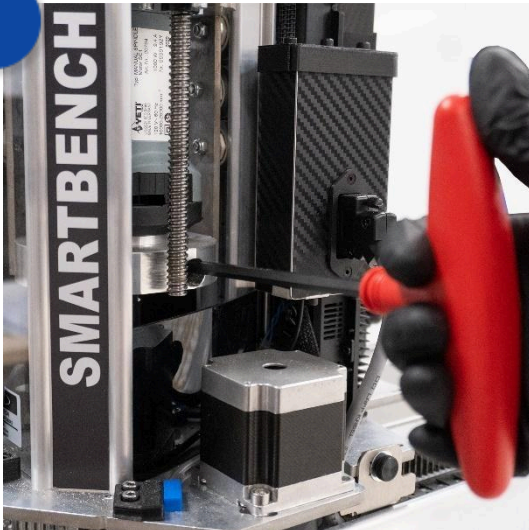
**1**

Disconnect the power cable from the IEC connector

**2**

Remove the speed control cable

## Step 2: Loosen spindle cage collar

**1**

Insert the 6mm hex driver into the spindle cage bolt and rotate left to loosen the bolt.

**2**

Then lift your spindle out of the top of the cage. The spindle may need to be rotated to remove it.

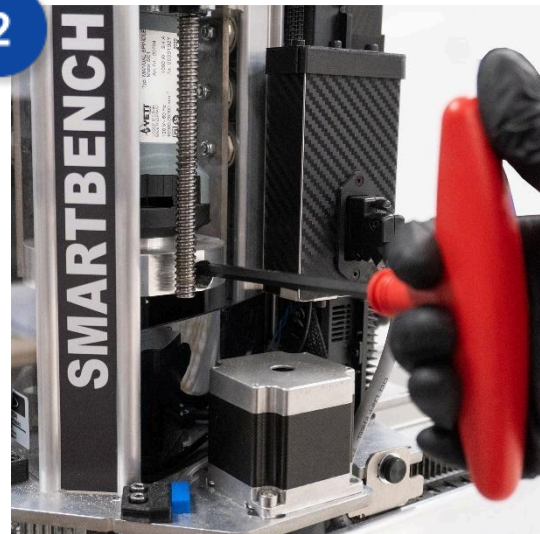
## Step 3: Replace spindle

1



Once you have changed your cutter, carefully replace your spindle in the cage with the spindle switch facing forward.

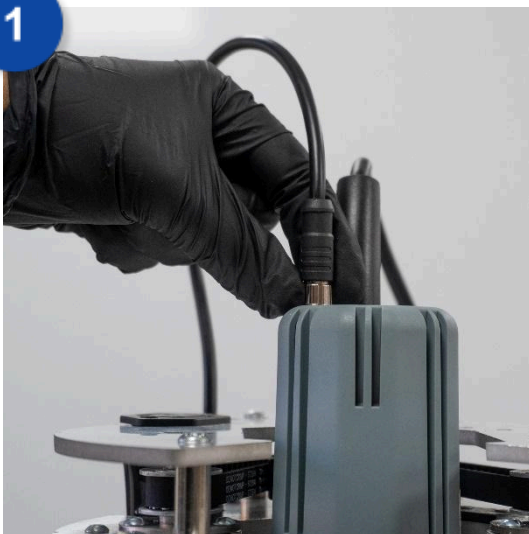
2



Tighten the spindle clamping bolt. **Once the clamping torque has been achieved (you can no longer spin the spindle around inside the cage) apply an extra 1/8 turn maximum (45° turn). DO NOT over tighten - this will damage the bearings in your spindle. See the included spindle document for more info**

## Step 4: Connect cables

1



Reconnect the speed control cable ensuring to tighten the threaded collar.

2



Push the power cable back into the IEC connector.

# Maintenance

SmartBench is designed to be maintained by the operator, and has built-in automatic reminders to help you out. The level of maintenance required is fairly low, but necessary.

For all required maintenance see this [article](#). It includes all the timeframes and links to reference maintenance help. Keep up with your maintenance to improve accuracy and reduce the chance of any issues arising

# Extraction

The minimum extraction flow rate for SmartBench is 70l/s - we recommend shortening the extraction hose to a maximum of 1.5 metres to reduce flow rate loss with longer hoses. And to reduce the chance of [extraction static buildup](#).

You can only use power your extractor through SmartBench v1.3 if:

You are using a 120v and your extractor consumes less than 1.5 kW power, or

You are using a 230v and your extractor consumes less than 2.9 kW power.

# Spoilboard

A good spoilboard is rigid and flat. Many different materials can be used as spoilboards; MDF and plywood are particularly popular choices.

We recommend using a 6mm (1/4") or 9mm (3/8") double-melamine-faced MDF board. We also recommend that no thicker than 9mm is used as this can prevent the upper and lower beam from ironing out any material inaccuracies

The most important thing is that SmartBench can move easily across the spoilboard, and clamp it together with the stock.

# Troubleshooting Section

If you are experiencing problems with your SmartBench, please see the troubleshooting guides below that may be able to help you. If you cannot find your answer below. Please do not hesitate to submit a [support ticket](#) on our website.

## SmartBench will not power on

- Check your power connections into the lower beam are secure
- Ensure the emergency stop button is released (with the green part of the button released)
- Check the fuses (these can be found on the underside of the lower beam)



- Ensure your console is connected to the XLR connector on the upper beam
- Ensure the Z Head power and signal cables are connected, and the retaining screws tightened
- Ensure the connection pins are not bent out of shape on the Z-Head.

## Console will not boot

- Ensure the Z Head power and signal cables are connected, and that the retaining screws tightened
- Ensure your console is connected to the XLR connector on the upper beam
- If you are stuck on the YetiTool Splash screen, you may have a storage fault. Please contact support for instructions on how to replace.

## SmartBench will not home correctly

- Ensure there are no items that could foul the movement of SmartBench
- If it stalls after reaching the end of the X or Y axis check the corresponding home limit switches. [Failed X Limit Switch](#). [Failed Y limit Switch](#).
- If SmartBench is stalling while moving in the X axis see this [link](#), and in Y see this [link](#). If it is stalling in the Z-axis you may need to [clean and grease the lead screws](#). Please submit a support ticket if the stalling persists.
- Check that the Z-Head has been pushed onto the upper beam far enough. The drag chains are connected correctly and the thumbscrews are not loose.

## Software will not update

- Ensure your console is connected to a network using the Wi-fi app on the console
- If you are updating via USB, ensure you have saved the file to the root of the USB drive

## Console will not connect to the Wi-Fi

- Ensure you have selected the correct network and that it is 2.4ghz not 5ghz
- Ensure you have entered the Wi-Fi password correctly. The password is case sensitive
- Ensure you have the correct country code selected or GB works for most
- If you are using the console in a place without Wi-Fi see these instructions for connection to an [Android hotspot](#) and these for connecting to an [iPhone hotspot](#)

## USB will not read

- Ensure that you have saved your files as the correct file type. They should be either .gcode or .nc format

- Ensure your USB stick is correctly formatted to either: NTFS, FAT32, HFS+, EXT2, EXT3 or EXT4
- Use the USB first aid application on the console in the system tools section

## SmartBench is in an alarm state

- Clear the alarm using the resume button on screen
- Clear the alarm by pressing the purple reset icon
- Check that the [stop bars](#) are not pressed inwards

## Spindle does not power on

- Ensure the spindle power cable (and speed control cable - for precision models) are both plugged in
- Ensure the switch on the spindle is turned on
- Check your [brush wire is on the correct side](#) and they are [over 9.5mm](#) by removing the back cover of the spindle
- Check that the speed control cable - the smaller of the two cables exiting the top of the spindle is connected correctly and screwed in

## Extraction does not power on

- Ensure the extraction is plugged into the extraction cable provided by SmartBench.
- Ensure your extraction is turned on
- If you are using automatic extraction check that all three cables are plugged into the lower beam. One for smartbench power. The other to input the extraction power into SmartBench. And the final one to output the extractor power from SmartBench.

## Issues with CAD designs

- If using Vectric check our [first project](#) for beginner information
- Check youtube for tutorials in your chosen cad package
- Check that your feeds and speeds correspond with our [example guidelines](#)

## Accuracy Issues

- Check that your [spoilboard is no larger than 9mm thick](#)
- If you have a set of callipers, are the [toolbits diameters](#) actually the stated figure. They can be under or oversized slightly

- Check that your [extraction system](#) is over 70l/s with a hose no longer than 1.5 metres long. Having a hose under 1.5 metres also greatly reduces the chance of having a [static issue](#) and your machine stopping mid job.
- [Check the cutters](#) are in good condition
- Check your [feeds and speeds](#)
- Run through our [calibration application](#)
- Check if any adjustments are required for the [X-axis](#) and the [Y axis](#) wheels after 120 hours
- Does the machine require any [maintenance](#)

## Support

If you require any support, please visit our website, and raise a support ticket

[www.yetitool.com/support/submit-a-ticket](http://www.yetitool.com/support/submit-a-ticket)