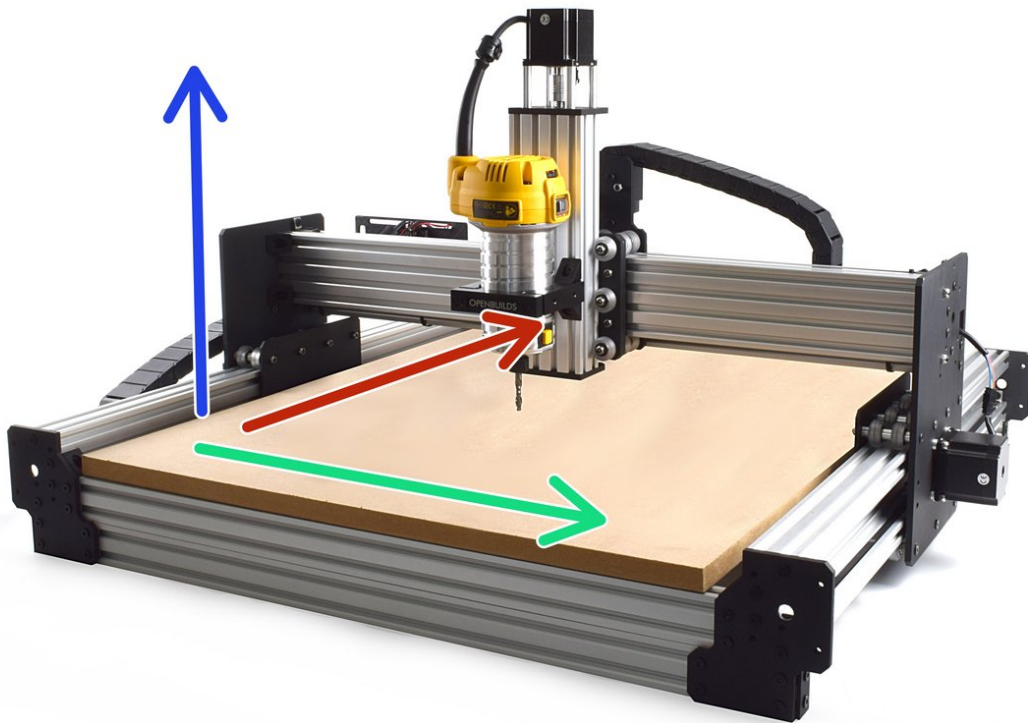




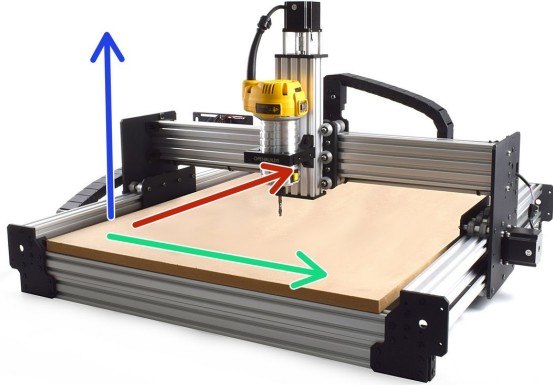
# Testing Your WorkBee

This guide goes over testing the WorkBee CNC Machine to make sure everything is functioning correctly.

Written By: Ryan Lock

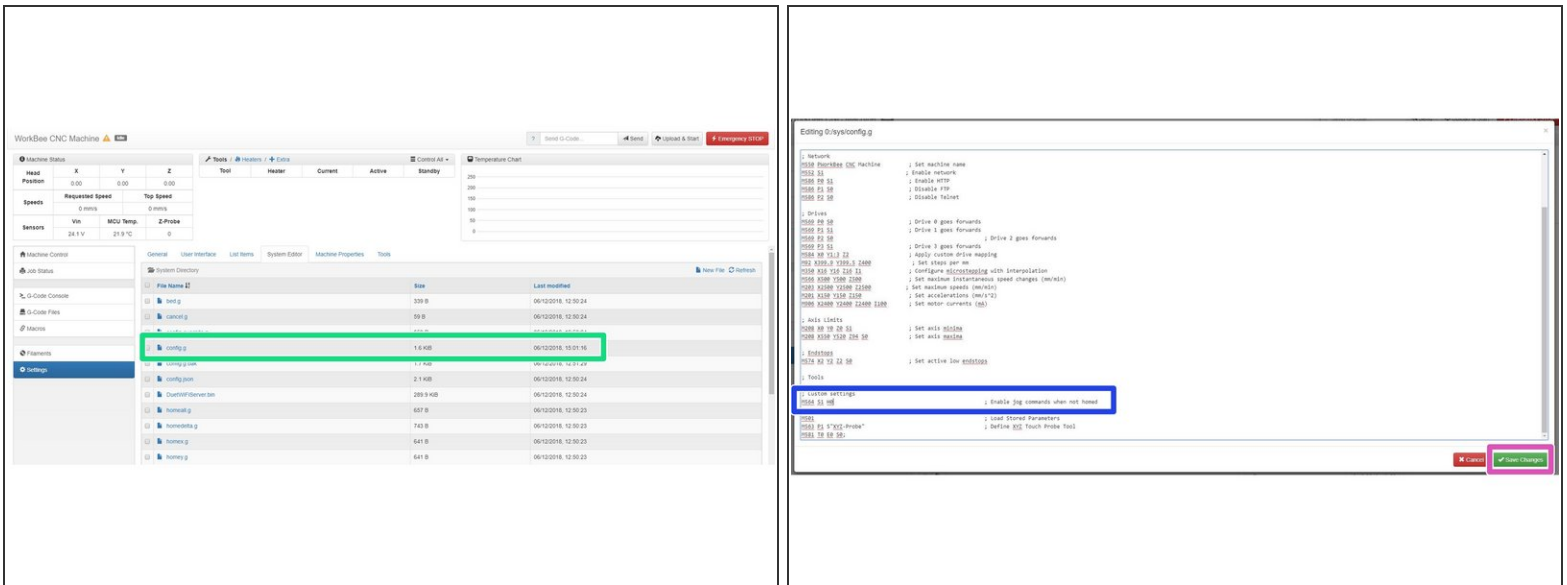


## Step 1 — Axis Movement Direction



- If looking at the machine from the front the correct axis motion is, X-Axis is positive towards the right.
- The Y-Axis is positive going away.
- The Z-Axis is positive going up.

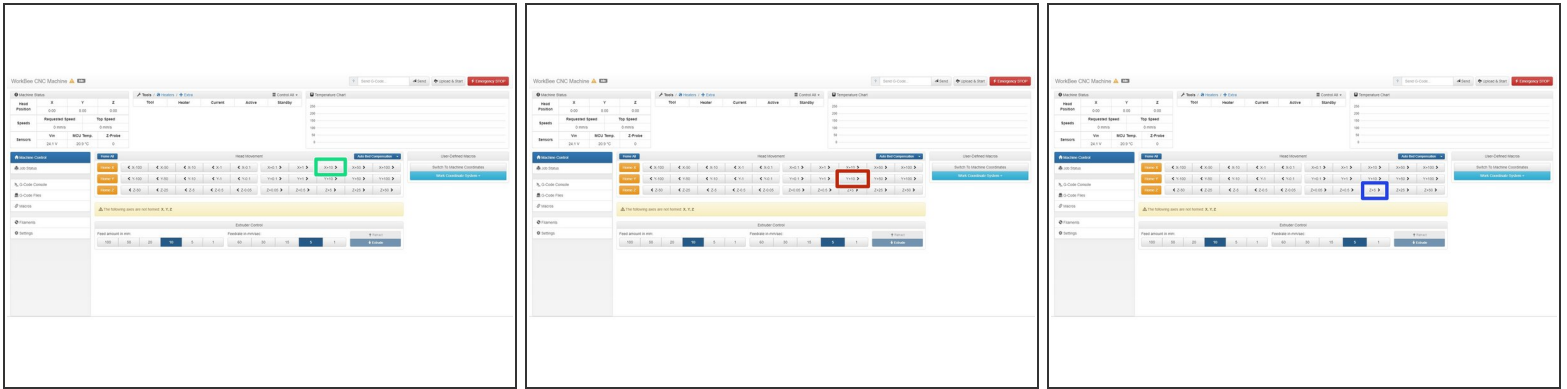
## Step 2 — Enable Jogging Without Homing



**i** To test the machine we need to check each axis moves correctly. For safety reasons, the firmware is setup so the machine cannot be jogged before it is homed. We need to disable this to test the machine.

- Go to Settings > System Editor and click on the file named config.g
  - At the bottom find the line M564 S1 H1
  - Change it to M564 S1 H0
- Once complete, Press 'Save Changes', and reboot the Duet.

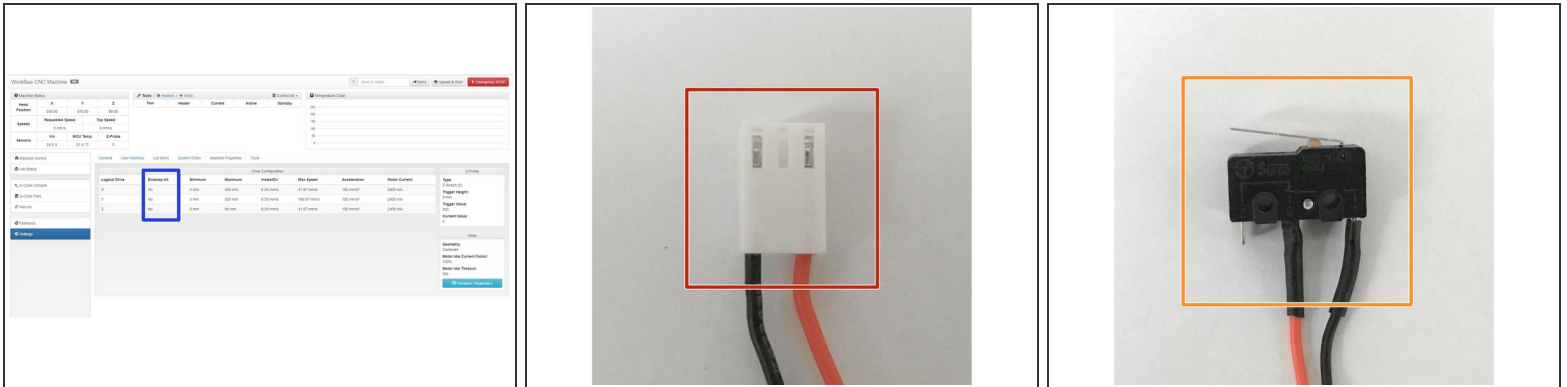
## Step 3 — Check Axis Movement Direction



**⚠ Please be very careful when carry out the following steps. Check there is enough travel for the machine to carry out these steps. If there isn't enough travel either reduce the jog amount, or move in the other direction.**

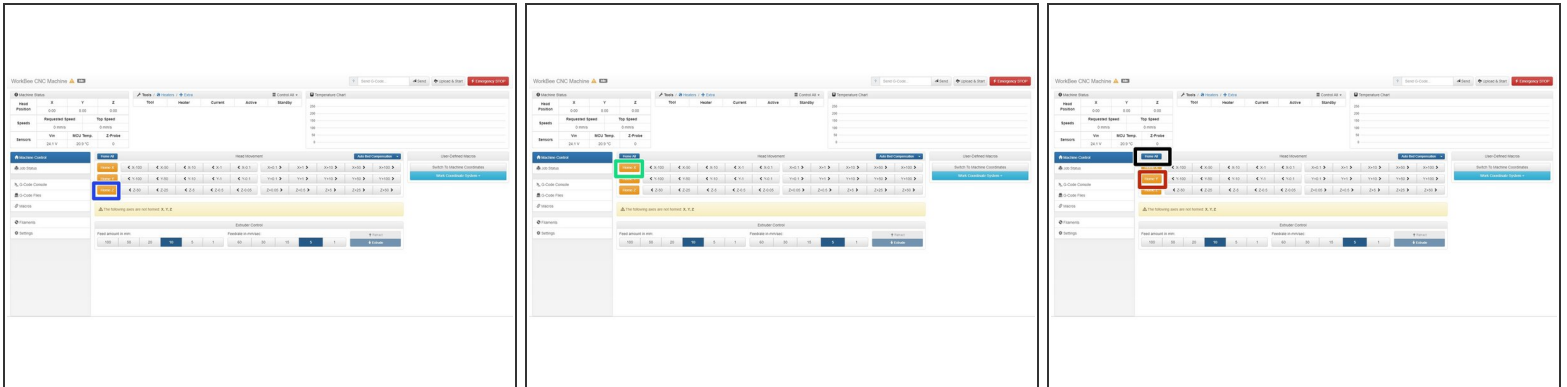
- With the machine roughly in the middle of travel on all its axis. Connect to your WorkBee in WorkBee Web Control.
- Jog the machine 10mm in the positive X Direction by Press 'X+10'. The machine should move 10mm to the right.
- Jog the machine 10mm in the positive Y Direction by Press 'Y+10'. The machine should move 10mm to the away from the front.
- Jog the machine 5mm in the positive Z Direction by Press 'Z+5'. The machine should move 5mm upwards.
- ① If any of the axis are travelling in the incorrect direction please refer to this guide to rectify it: [How To Change Axis Travel Direction](#)

## Step 4 — Test Limit Switches



- In WorkBee Web Control Navigate to Settings > Machine Properties.
- The second column displays the limit switch status.
- Activate the X-Axis limit switch with your finger. The hit status should changed to 'Yes'
  - Repeat this procedure for the Y & Z Limit switches.
- ❗ If any do not behave as intended, please check they are wired into the correct inputs.
  - If they are wired correctly. Please check they have been manufactured correctly. The wiring on the connector side should match image 2.
  - The wiring on the limit switch side should match image 3.
- ❗ Please contact us if they have been manufactured incorrectly and we will send out a replacement unit.

## Step 5 — Test Homing



- ① When the machine homes it should raise the Z-Axis and stop, and then Home the X and Y-Axis to the far right hand corner.
- Press Home Z. The Z-Axis should raise upwards, bounce once on the limit switch, and then stop.
- Press Home X. The Z-Axis should home like the previous step. The X-Axis should then move towards the right, bounce once on the limit switch, and then stop.
- Press Home Y. The Z-Axis should home like previous. The Y-Axis should then move towards the back, bounce once on the limit switch, and then stop.
- Press Home All. The Z-Axis should home like previous. Then the X and Y-Axis should home like previous.

⚠ Once testing is complete, repeat Step 2 but change M564 S1 H0 back to M564 S1 H1

Thanks for following the guide. Testing of the WorkBee is now complete!