A couple footnotes: These Checklists are specific to my woodshop so some of the items may be different for you. I created an explanation column for you to see why I do these things specific to my machine. I am sure your list might be different.

**BEFORE EACH CARVE (and before powering up the X carve)**

|  |  |
| --- | --- |
| Inspect X and Y axis Travel for obstructions | Because my shop is packed with tools and work, I sometimes will accidently leave a loose piece of wood or a tool lying around my X-carve |
| Quick Inspect belts and tracks for dust and vacuum if needed | As above, I have good dust collection, but sometimes woodchips get on the belts or along the maker slide. Keep that area spotless. |
| Is the dust boot firmly attached & adjusted to the workpiece, will it travel freely over any clamps | I just move it around to be sure it is not rubbing hard enough to affect the router travel. |
| Are V-wheels snug?  4 on each side of Y maker slide, 4 on each side of X maker slide, and 4 on the z maker slide  (I actually do not do this every carve but I probably should) | I check this by hand rotating each v-wheel while keeping the carriage from moving, making it slide or rub against the maker slide. It should be hard to move and there should be significant friction, but it should still be loose enough to slip. |
| Is the waste board area free of anything loose | Sometimes a clamp or part from previous carves |
| Eye Protection/Hearing Protection | I wear eye protection always, watched a buddy get hurt when a bit snapped on his CNC and flew into his eye. I wear ear protection only if the bit/carving process gets loud. I use cheap hearing protection muffs that I can still hear the machine through in case something does not sound right. |
| Will the bit travel freely up and down to its deepest depth in the dust shoe? | Sometimes if a bit will be carving deep and the bit itself is short, the bottom of the DeWalt will run into the top of the dust shoe. Better to see this in advance and adjust accordingly and just remove the plastic inset from the dust boot. |
| Place filler boards around workpiece if needed. | Used to reduce the gap created when the router cuts at the edge of a taller workpiece where chips can fly out or the suction of the cut path goes down. I use scrap wood that is thinner than the workpiece and sits unobstructed below the carve. |
| Plexiglass Dust guards Secure and won’t interfere with x and y travel? | I have side guards made of plexiglass on my y axis that keep dust from flying up on the maker slide. Occasionally they may work loose and can block travel of the carriage if they get loose enough. |

**Ready to power up x-carve-Test movement x, y, and z while zeroing it to the workpiece.**

**Turn on Vacuum and router on as easel instructs**

**Preventive Maintenance**

**Weekly**

**-Thorough Vacuum and remove dust from all parts**

**-Inspect Tightness and clear V-wheels if there’s any boogers trapped in them**

**-Check tightness of - Router in Mount, homing switches tight to maker slide, plexiglass side dust guards, Dust Hose and Grounding clamp, anything that could come loose.**

**-visual check of- Wires, Drag Chain, Waste board**

**-move carriage over entire range of x and y axis and feel for smoothness as it travels (boogers in the v-wheels, loose belts, obstructions)**

**-Empty and clean Dust Collector/Cyclone**

**-Check tension of belts – should be like a very loose guitar string just barely tight enough to make a low sound or even slightly looser.**

**Monthly**

**-Wax Dust boot adjustment tracks – Paraffin (candle wax)**

**-Lubricate Acme Screw on Z Axis – if squeaking (I use a dry lube)**

**-blow out router with compressed air – careful not too hard (extends router life)**

**-wipe belts and tracks with a barely damp cloth till good as new (I have never had a belt, wheel, or anything break, likely because I keep these areas very clean)**

**-check tightness of the bolts that connect the maker slide to the end brackets (Helps keep the machine square**

**-check x y and z for squareness**