**Ripping on the Table Saw:**

The table saw excels at one task: accurate straight cuts. Ripping and crosscutting are fundamentally different actions.

*Ripping* refers to cutting parallel to the wood fibers, or more generally to cutting in the longer dimension.

Setting the rip fence allows you to make repeated accurate cuts for identical pieces.

Keep your fingers away from the blade. Use a pushstick if you have to push narrow pieces through the blade.

Long awkward pieces can tip during or after the cut. Be sure you have plenty of well-coordinated help to move big heavy sheets of plywood through the saw.

Never never never rip without pressing a straight edge of the work against the rip fence, *in front of the blade.* If you can’t do this confidently, the table saw is not the right tool for the job.



Remember the back of the blade is moving just as fast as the front, but with the teeth *rising*. If the teeth catch the wood, the blade will kick the wood up or back at you. *Kickback is the greatest danger of ripping on the table saw!*

The back of the blade can catch two ways: If the work rotates (does not follow the fence), it can be pushed into the back of the blade. That’s why the pressure against the fence has to be in *front* of the blade.

The blade can also catch if the board pinches the blade. Remember that wood is a wildly irregular material and can have internal stresses. Using the *riving* *knife* reduces the risk of pinching the blade. Be sure to use a *featherboard* in front of the blade if you are ripping 2x4’s. (Novices should not rip 2x4’s)

**Generic Power Tool Safety for Robotics Field Builders:**

1. The tool does not know or care about you or the work. The tool’s only goal is to convert electrical to mechanical energy by spinning something very sharp very fast.
2. Your goal is to arrange the world so the tool’s mechanical energy serves to cut wood fibers, rather than hurl projectiles, yank your hair, grab your arm or carve your flesh.
3. Remember chronic injury – use hearing protection and respiratory dust protection.

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