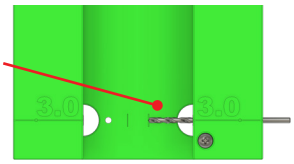
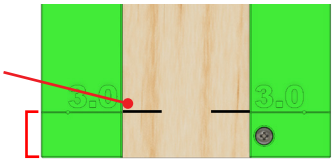
Turbo Jig XL Hybrid Instructions

The Turbo Jig is designed to establish a solid foundation for the rear wheels, front to back and side to side alignment of a Derby car. There are many variables involved that can effect the precision of the alignment such as proper clamping of the body, the size and quality of the wheels, wheel bores, axles, axle bend etc.

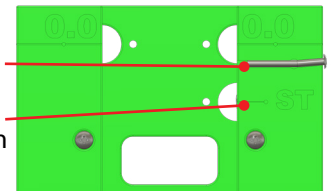
1 Insert drill bit into one of the rear holes and align the tip with the indicator mark. This gives the correct depth for drilling the axle hole. STOP **The drill bit MUST move smoothly through the drill bushings. Please use the drill bit provided with the jig, or a #43 bit that has been sanded until it moves smoothly through the bushing. Failure to do so can cause damage to the jig.**



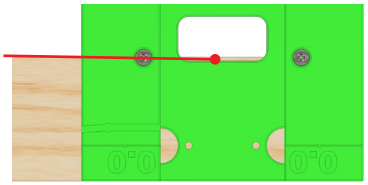
2 Mark the wood block where axle holes are to be located. Align these marks with the corresponding lines on the jig. STOP **The wood block must not be forced into the jig. This can lead to misaligned holes or damage to the jig. If the block is too wide, sand it until it fits. The wood block MUST sit flat in the jig in order for the holes to be drilled at the correct heights for proper alignment. Please make sure to clean away any debris from the jig pocket before clamping the block in place.** The rear wheel bushings are located 5/8ths (.625) inches from the rear of the jig. Therefore the wood block can be mounted flush with the rear to obtain a preferable rear axle placement. Clamp the block in place and drill the holes. Repeat for the front holes. STOP **Please use only enough clamping force to hold the wood block in the jig. Too much force can skew the wood or with enough pressure, flex the jig resulting in misaligned axle holes.**



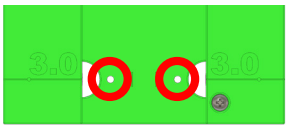
3 Use preferred axle bending method (the Turbo Bender is a good option) to bend the axle until fits into the axle bend gauge. This ensures that the front of the car will be level with the rear. **Alternatively** use the ST bushing to drill the steer into the car. Using this option the front axle does not need to be bent. STOP **Practically none of the stock axles are straight. This will affect how much the car steers. It is advisable to still check the steer of the car when using built-in steer, even with aftermarket axles. Rotating the steer wheel axle, AND the rear axles will change how much the car steers.**



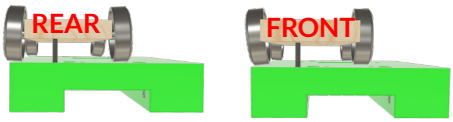
4 In order to mark the portion of the car body that needs to be cut away from the front wheel area, arrange the jig vertically on a flat surface. Place the wood block behind it and mark with a pencil. This is the amount of material that needs to be removed to ensure proper side to side alignment.



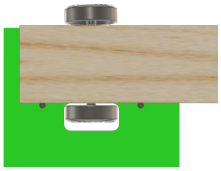
5 These holes can be used to drill glue ports for the axles. Align the axle hole location marks from step 2 with the reference lines of the jig. Drill carefully from the bottom until the bit pushes through to the axle hole.

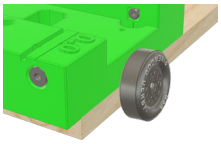


6 Verify front to back alignment by extending the lower right bolt until it touches the bottom of the car between the rear wheels. Rotate the car 180 degrees, the bolt should touch/rub the car between the front wheels the same. Tweak the bend of the axle to fine tune alignment if needed.



7 Verify side to side alignment by fully extending the two bolts located near the middle hole. Place the car so the left side of the body rests against the two bolts. The front steering wheel should barely touch the side of the jig. Tweak the alignment by sanding the body to bring the wheel in, or adding washers or other material (super glue, wood etc.) to bring it out.





Video version of these instructions:

CLICK HERE:

OR SCAN:

TURBO DERBY