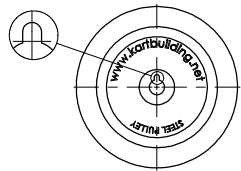
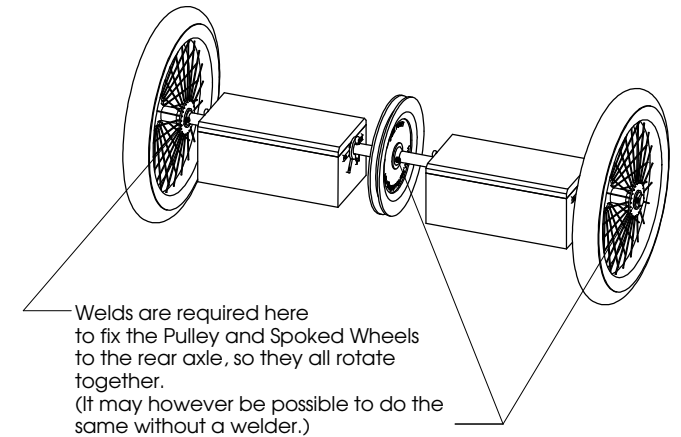


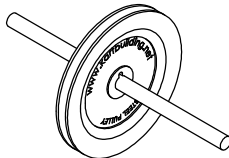
REAR AXLE ASSEMBLY #3

As this Rear Axle is "live", the entire axle rotates, along with the Pulley Wheel and the two Spoked Wheels. (As opposed to a dead axle, where only the wheels spin on the fixed axle.) Therefore, both the pulley wheel and the two rear wheels must be fixed or welded to the rear Axle. The easiest and quickest method to fix the Spoked Wheels and Pulley to the Axle is to weld them. This requires that the Pulley Wheel and Spoked Wheels have metal / steel hubs which can be welded to the metal Axle. It also requires the use (or borrowing, or asking someone) of a welder.

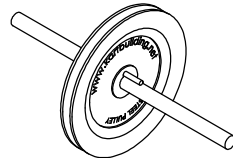
It may be possible however to secure the pulley wheel and the two spoked wheels to the Rear Axle without the use of a welder. While it is advised that a wheel with a metal hub/center is used, on a last resort it may be possible to use a wheel which has a hard plastic hub, and to secure this to the Rear Axle. This page describes how to do this.



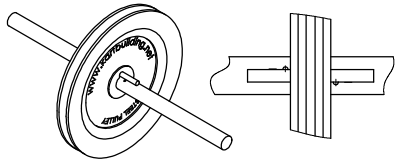
Step 1:
Drill a 5MM Hole through the Pulley close to the center hole. Clean and file / grind square.



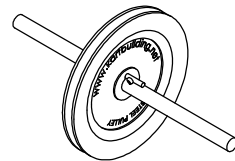
Step 2:
Insert the Axle into the center hole.



Step 3:
Insert a M5 Bolt x 50MM Long (with its head cut off) into the small 5MM hole drilled in Step 1.

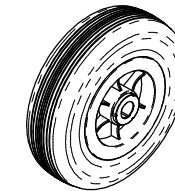


Step 4:
Drill 2 Holes of diameter 2MM on either side of the pulley.

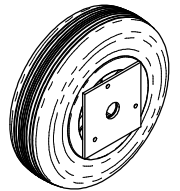


Step 5:
Insert 2 Split Pins. These will prevent the pulley wheel from rotating, and also stop the pulley from moving side to side.

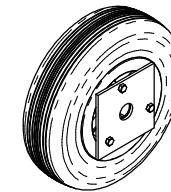
Securing the Pulley to the Axle



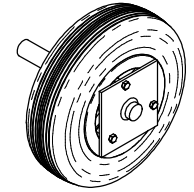
Step 1:
Wheel with a plastic hub.



Step 2:
Obtain 2 pieces of 2MM sheet steel. Sandwich the 2 plates on either side of the wheel. Drill 3 holes through the steel plates and the plastic hub.

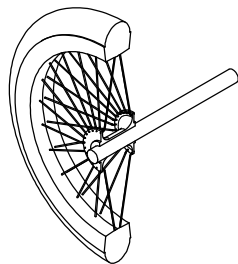


Step 3:
Insert 3 bolts which are long enough to secure the 2 plates (one on either side of the wheel) to the plastic hub.

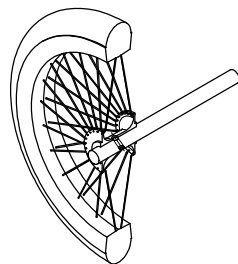


Step 4:
Insert the metal axle. In this case the 2 steel plates are welded to the rear axle. If no welder is available then a similar method used in securing the pulley to the axle (as described above), could be used here.

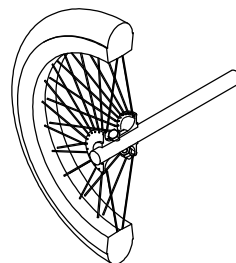
Securing a Wheel with a Plastic middle / hub to the Rear Axle.



Step 1:
Place Axle through the center of the wheel. (Wheel cut in half above for clarity)



Step 2:
Drill a 5MM diameter hole through the center of the wheel and axle together.



Step 3:
Insert a 5MM Bolt into the hole. Tighten a nyloc locknut in place to prevent it from loosening.

Securing the Wheels to the Axle

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TITLE: REAR AXLE ASSEMBLY #3

MATERIAL AS SPECIFIED DATE: 17/10/2009

FILE NAME: Main-Wooden-Kart- SIZE: A4 REV. 1

SCALE: 1:20 DESIGNER: STEPHEN BURKE SHEET 14 OF 21

