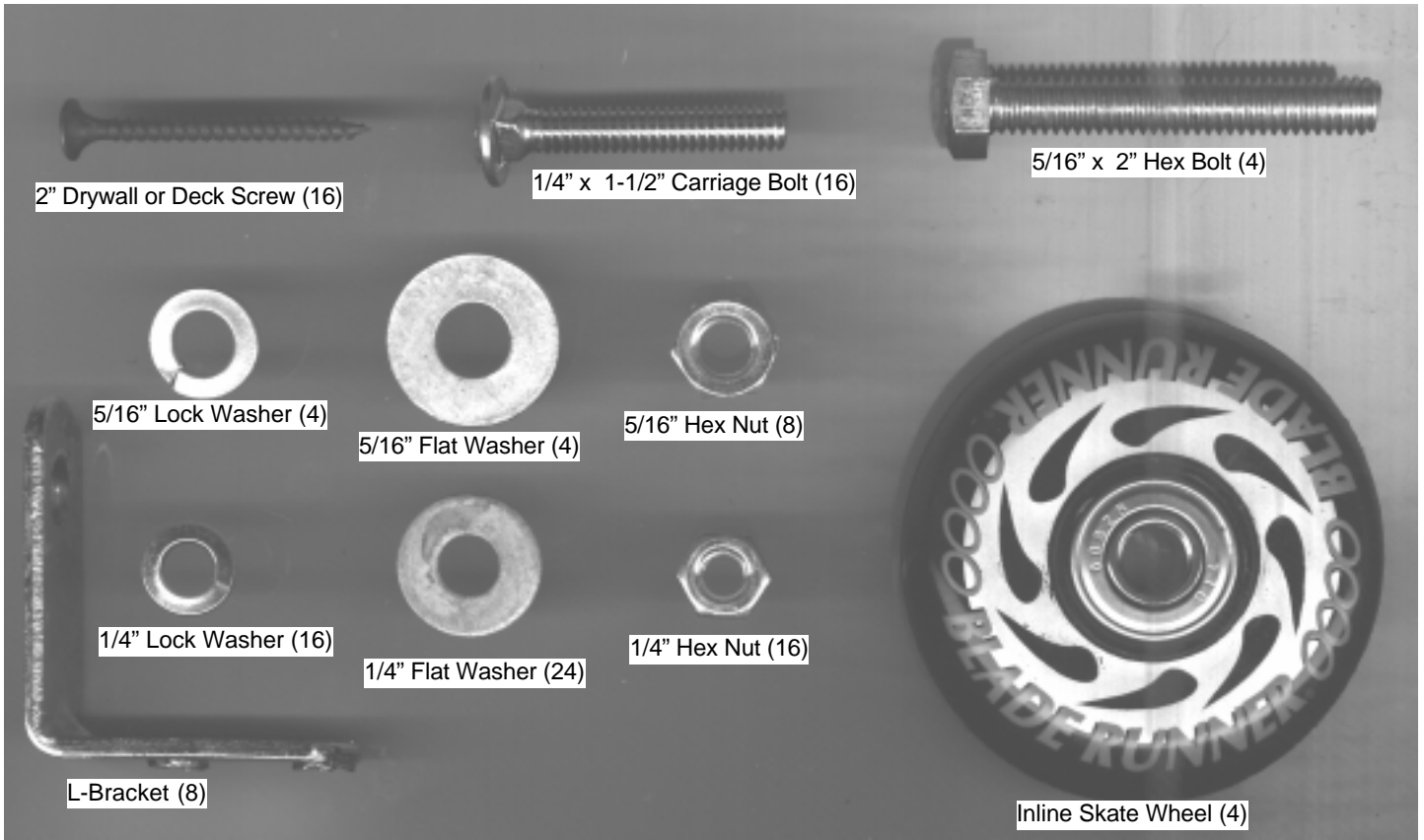


Human Dynamics Cart

Designed by Rex Rice



Required parts for "Human Dynamics Cart"

Purpose

1 - 18" x 30", 3/4" plywood platform	Body of cart
2 - 2" x 3" x 24" boards	To reinforce plywood cart body
4 - 64 mm inline skate wheels with bearings	Wheels
8 - 1-5/8" L-brackets	To attach wheels to body of cart
16 - 1-1/2" drywall or deck screws	To attach stiffening boards to body of cart
16 - 1/4" x 1-1/2" carriage bolts	To attach L-brackets to body of cart
4 - 5/16" x 2" hex bolts	Axles for wheels
4 - 5/16" lock washers	To help fasten axles
4 - 5/16" flat washers	For carriage bolts on top of platform
8 - 5/16" hex nuts	Nuts and lock nuts to fasten axles
16 - 1/4" lock washers	To lock nuts on carriage bolts
24 - 1/4" flat washers	Spacers between brackets and bearings
16 - 1/4" hex nuts	For carriage bolts

1. Center one 2" x 3" 24" long board on each long side of the plywood platform. Attach each with 8 drywall screws in a zig-zag pattern.
2. Assemble four wheel setups in the following order: 5/16" hex bolt, 1/4" flat washer, L-bracket, 1/4" flat washer, wheel, 1/4" flat washer, L-bracket, 1/4" flat washer, 5/16" lock washer, 5/16" hex nut, 5/16" hex nut. Be careful not to over tighten this assemble. Overtightening can cause the bearings to bind the wheel.
3. Locate position for wheel assemblies to attach to the corners of the body. Carefully mark positions of all four holes on each wheel assemble. Make sure all wheels will track straight.
4. Drill 16-1/4" holes where marked. Drill carefully and precisely!
5. Attach wheel assemblies to body. Each drilled hole should contain a 1/4" x 1-1/2" carriage bolt. Place a 5/16" flat washer (for half) and a 1/4" flat washer (for the other half) on the carriage bolts. Insert carriage bolts into drilled holes. Attach wheel brackets to bolts. Slip a 1/4" lock washer and a 1/4" hex nut on each carriage bolt. Tighten each nut horoughly.

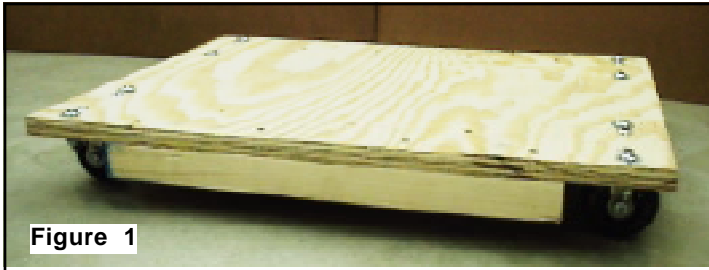


Figure 1

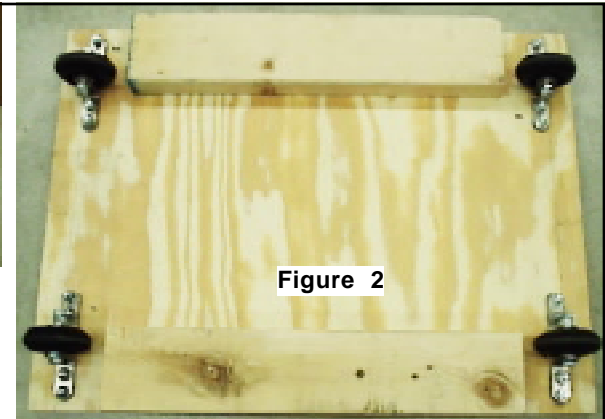


Figure 2

Figure 1 shows a side view of the assembled cart. **Figure 2** shows a bottom view of the same cart. **Figure 3** shows a top view of the cart. Note that the cart shown is 18" wide by 24" long. The instructions are written for building a slightly longer cart at 30" long.

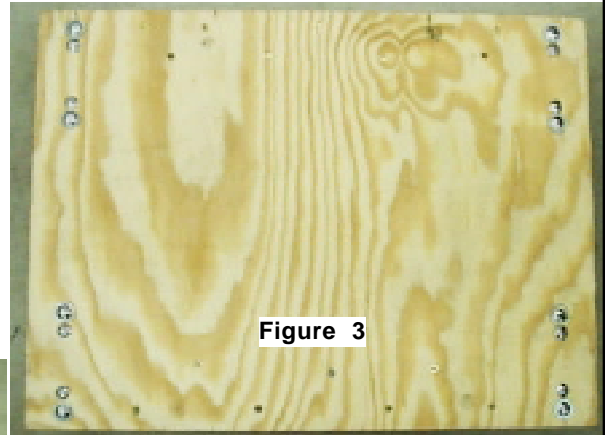


Figure 3

Figure 4 shows the end of the cart along with the bottom.

Figure 5 shows the wheel assembly and how it is mounted to the body of the cart. Depending on the diameter of the wheel used and the size of the L-brackets, 1/4" washers may be necessary between the brackets and the plywood to keep the wheels from binding against the plywood.

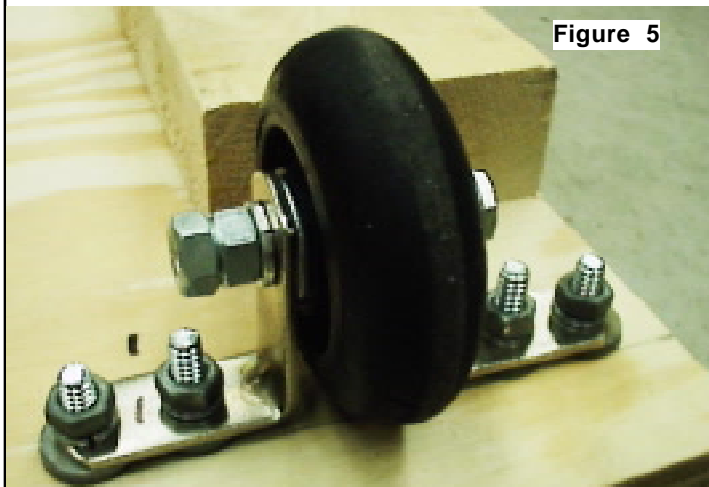


Figure 5

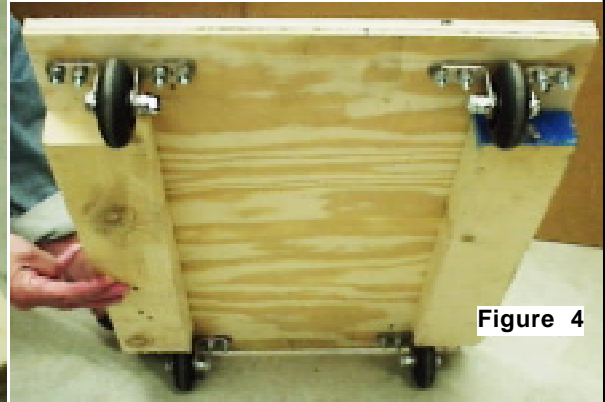


Figure 4