

# RESOURCE

GETTING HANDS ON WITH WHAT  
WE CAN GET OUR HANDS ON

## **Change by Design**

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ReSource builds furniture using discarded materials in the Brightmoor neighborhood of Detroit, bringing together Detroit Community High School students and community resources in Brightmoor.

Discarded materials such as tires can be a huge contributor to urban blight, and utilizing these resources in this product provides a use for the materials collected during a blight clean-up.

Our first ReSource design is the Dream Catcher Chair, on the right. This document presents our product creation process, including lessons learned along the way.



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# Building the Dream Catcher Chair

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Building a Dream Catcher Chair is a process of learning by doing. It's an exploration of what the materials can do, and learning what you yourself can accomplish. Materials include two tires, about 30 feet of rope, two planks of wood, and eight sets of nuts, 1.5" long bolts, and washers (2 per bolt). Tools include a power drill with a 3/8" drill bit, a utility knife, and a screwdriver.

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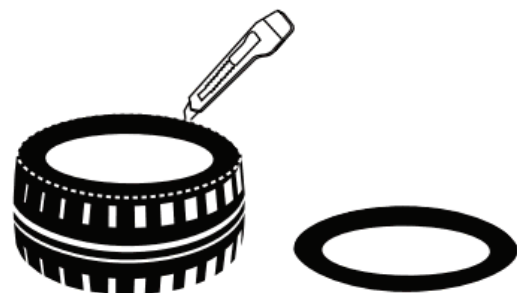
**Step 1:** Find a abandoned tires and transport them to where you'll be working. Watch out for tires that are charred; burned tires are useless because they will never become clean. Watch out for tires that are so worn that rusty metal is poking through. This pile of tires is where we got our first set. It's on Rosa Parks Blvd. in Corktown.



**Step 2:** Wash the tires with old rags, plenty of de-greasing soap and maybe some bleach. The tires are generally filthy. Dry them off and wash them again as needed.



**Step 3:** Cut the inner rim out of one side of a tire using a utility knife. It may need a few passes before the tire will be cut all the way through. Be as neat as possible, as the rim you're cutting will become the back of the chair.



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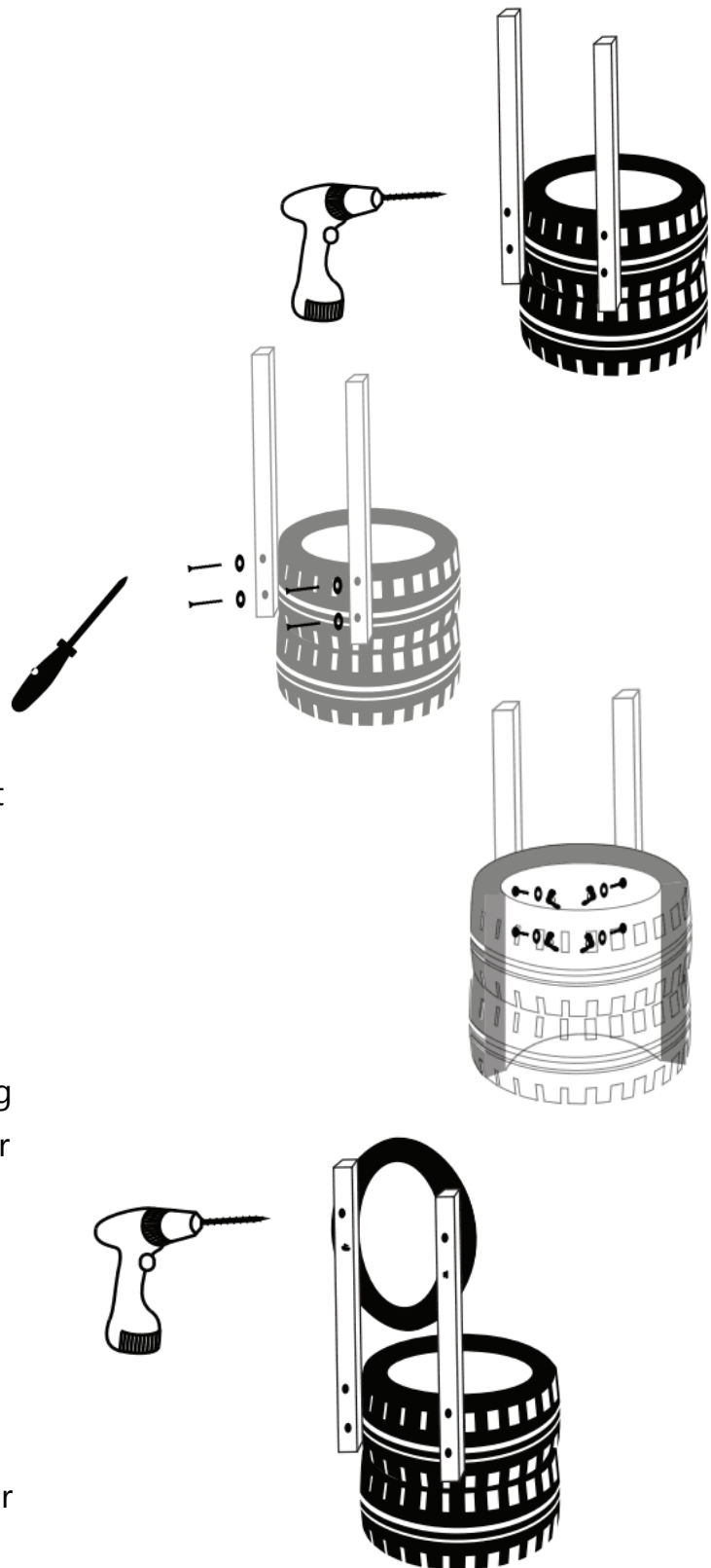
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**Step 4:** Drill holes in the wood planks and un-cut tire. Have a few hands on this, as the tire rubber and wood may start to burn if there isn't enough force on the drill. Make sure the wood remains vertical. The lower tire should be the one the rim was cut from. The rim-less side should face down. The tires can be bolted together, but we did not do this, as the tires can be very heavy.

**Step 5:** Use a screwdriver to insert the bolts with a washer. Do not try to use the power drill for this because the bolt heads may strip.

**Step 6:** Reach inside the tire and hand screw four wing nuts and washers onto the ends of the bolts. Tighten until snug against the tire, and use the screwdriver to resist motion to tighten further.

**Step 7:** Align the tire cutout with the planks and drill holes through both. Again, make sure there is enough force behind the drill so the wood and rubber do not burn.



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**Step 8:** Repeat Steps 5 & 6 with the new holes created in Step 7. This time, the bolt heads should be on the inside of the chair, as shown in the photo on the right.




**Step 9:** Use the power drill to make 10 or more evenly spaced holes along the rim of the base tire. Again, push hard and have someone help hold the tire in place.

**Step 10:** Weave a tight dream catcher pattern on the seat and back. Go through the holes you created in Step 9 and around the rim of the chair back to get the pattern started. Begin by wrapping the rope through/around once and knot it together. Work clockwise, looping the rope through the next hole (or around the rim) following the looping pattern shown on the right. After the first time around the circle, continue to loop around the center of the immediately clockwise segment. When you reach the center of the pattern, tie a tight knot.



# Building the Dream Catcher Chair

**Step 11:** Sit on the chair. Try it out. Try getting out. Restrung the dream catcher weave if it is too loose.

**Step 12:** Personalization and beautification: add wheels, add fabric, add another tire, add paint. This part is up to you. It is an opportunity to exercise creativity. 



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