

Make Your Own Dynamic Rocking Perch for Sensory Friendly Sitting!

Cardboard Family Fun!



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A rocking perch can be a great alternative to a standard chair or bench seat that are static and require the individual to be still while using them. Children are full of energy, so for many sitting still for long periods of time can be difficult. Adding just a small amount of movement to the seat they are using allows the user to burn off energy, and improve balance and posture while engaging in seated activities. This simple repetitive rocking motion allows for improved focus as well. The good news is that a rocking perch can be made right at home!

What is Adaptive Design?

The adaptive design approach was developed as an alternative to the expensive, time-consuming, and frustrating process of obtaining durable medical equipment, as well as for when a specific device does not yet exist to address someone's unique circumstances. By combining creative construction methods with low-cost, basic materials like cardboard, white craft glue, PVC tubing, and Velcro many pieces of adaptive equipment can be replicated or improved upon at a much more affordable price. What is better is that when utilizing adaptive design techniques, the end result can be unique to the user and created to fit their exact dimensions, interests, and abilities.

Adaptive design encourages a collaborative community approach to creating solutions. Typically teams are made up of individuals from different disciplines such as physical and occupational therapy, design and engineering, and most importantly individuals with disabilities (the users) and their families. The adaptive design approach places the device user at the center of their design team.

Visit Us!

The ARISE Adaptive Design workshop
ARISE Independent Living Center
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Website

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BENEFITS OF DYNAMIC SEATING

The AAD rocking perch has a curved base for gentle rocking and an angled seat to work on an individual's balance, trunk control and sensory integration. **Rhythmic rocking engages the vestibular system and proprioceptive responses.** This helps children to know where their body is in relation to their environment. A healthy vestibular system allows children to feel safe and confident in movements like jumping, running, swinging and rolling.

Studies have proven that dynamic seating like a rocking perch also has a **calming effect** on children that seek movement, helping them relax and to focus on their work. A dynamic and angled seat not only allows movement but **encourages upright posture** and engagement of the trunk muscles. Children are more aware of their posture and are encouraged to use their trunk muscles to sit up tall when using the rocking perch. Perches create a fun way to perform seated activities, burn excess energy and **promote focused attention.**

How to Build a Rocking Perch

Step 1

Gather Materials and Tools

Before beginning to build make sure to count all of the parts in your kit, collect all the tools you will need, and set up a workstation where you will have plenty room to build comfortably. Laying down paper towels or a tarp is also a good idea.

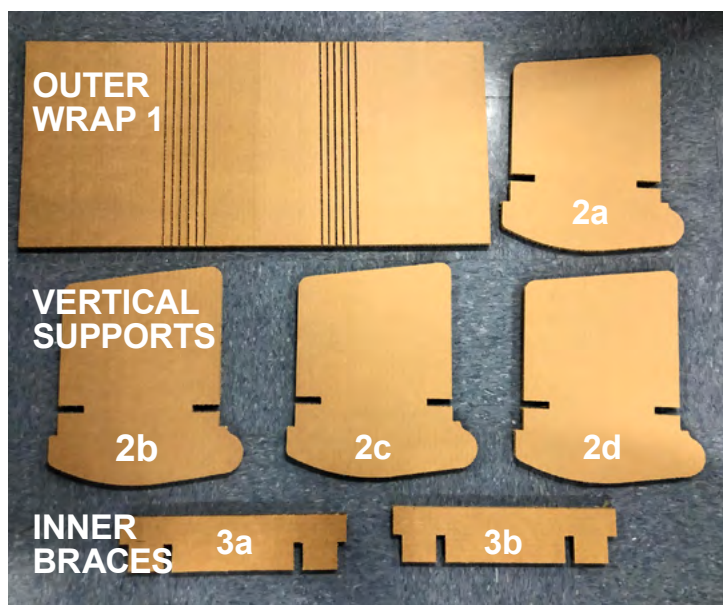


Materials and Tools:

- cardboard (7 pieces)
- 3/16-inch wooden dowels
- Elmer's or similar craft glue
- hammer
- paper bag or craft paper
- old credit or gift card
- water-based paint and polyurethane
- paint brushes
- plastic handle grommets
- yoga mat chair cushion

Additional tools and materials that can be helpful, but are not required:

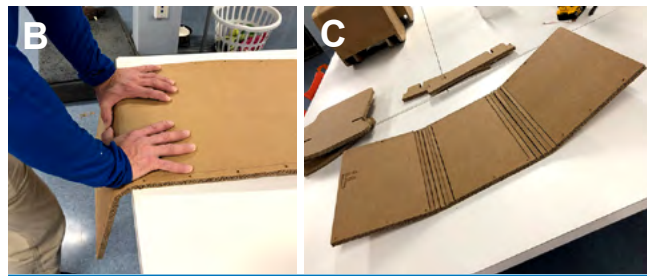
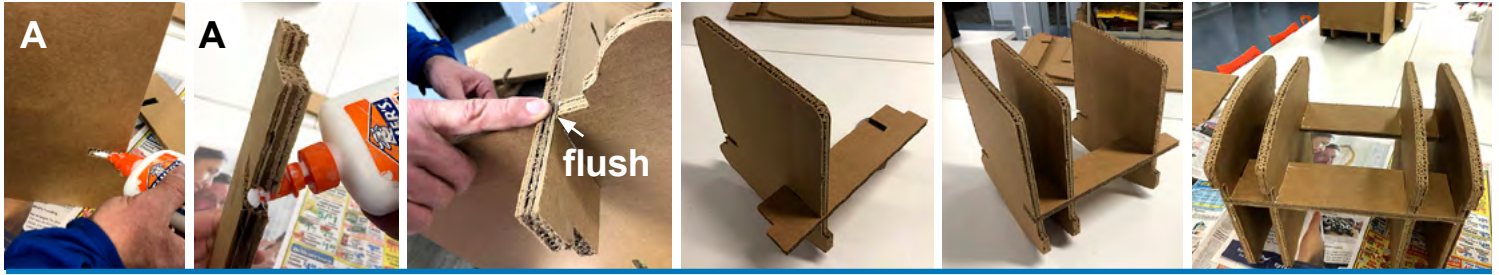
- hot glue gun
- drywall screws
- electric hand drill
- adjustable bar clamps
- utility knife
- steak knife
- sand paper



Create Your Own Parts: AAD has precut the parts for this rocking perch project, but our adaptive devices are typically measured and cut by hand. Cardboard is a great material to build with because it can be easily manipulated and cut into any shape you like!

Step 2

Interlock profile **VERTICAL SUPPORT** segments (2a, 2b, 2c, 2d) with **INNER BRACES** (3a and 3b). Add glue liberally to interior connecting faces (**IMAGES A**). Remove excess glue after connecting.

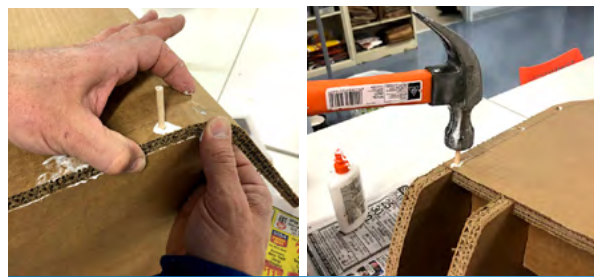


Step 3

Pre-bend **OUTER WRAP** segment. A good method to bend large pieces of cardboard is to place the sheet over the edge of a table and push down where you would like it to bend (**IMAGE B**). Make sure to line up your bend underneath before pushing down. The pre-cut horizontal score lines should be on the inside of your bend (**IMAGE C**). Be sure to bend each score line.

Step 4

Apply front face portion (marked with an "F") to the vertical support segments. The front face of the vertical supports is the side without the curved anti-tip extensions. Apply Elmer's glue to edges of the vertical segments where the wrap will touch (**IMAGE D**).



Step 5

Pound two inch long dowels into pre-drilled holes on the wrap face to help secure the outer wrap to the vertical support segments. Before inserting the dowels, coat each dowel in glue and pour glue into each of the pre-drilled holes.

HELPFUL TIP: An extra set of hands is useful to help align edges and wrap cardboard tight as you tap dowels into outer faces of cardboard.

Step 6

Repeat instructions in steps 4 and 5 for the top and front face of the rocker. To keep pressure on the cardboard while the glue sets and hardens you can place heavy items on top of the wrap, such as a paint can or heavy books (**IMAGE E**). Some other



methods to secure multiple glued cardboard pieces is to use drywall screws with a hand drill (**IMAGE F**), or by using adjustable bar clamps as shown in the pictures (**IMAGE G**). You are getting close!

Get the whole family involved! Get creative with leftover cardboard.

While cutting the cardboard may be better left to the adults, kids can still be involved with much of the adaptive device construction process. Measuring, gluing, doweling, edging, and especially painting can be great for both kids and adults alike. Cardboard construction techniques also offer a great intro into the basics of STEAM principles, even though they may just seem like a fun creative projects.

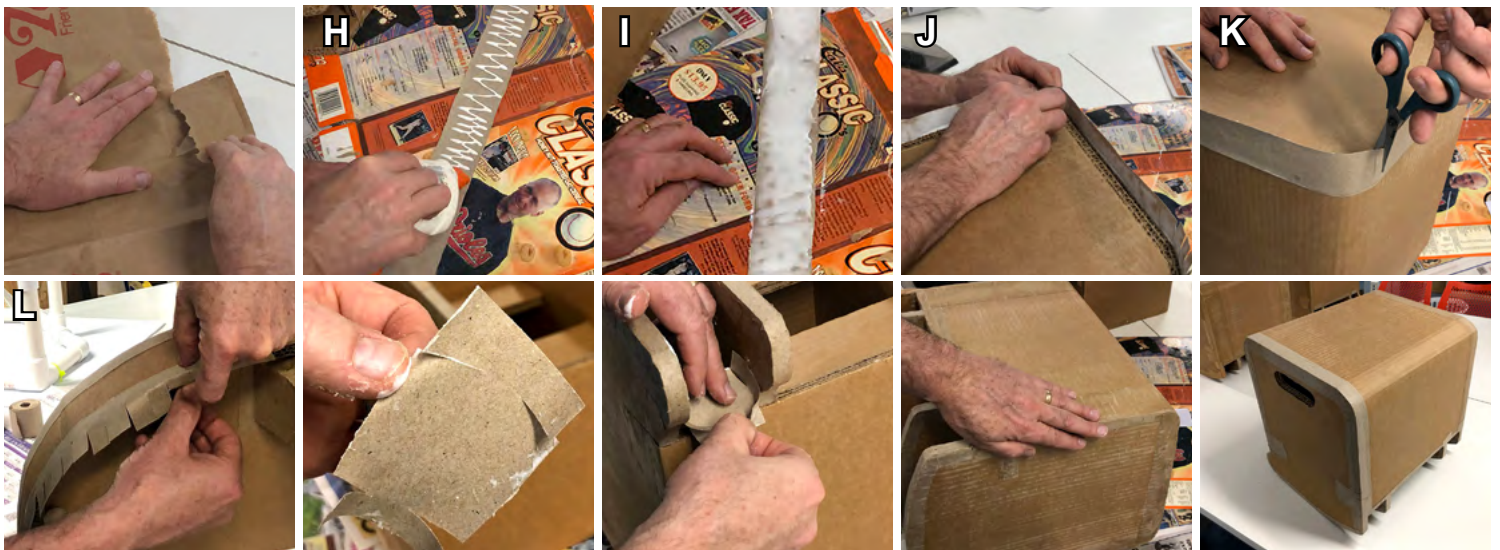
Leftover cardboard shipping boxes and even cereal boxes can be used for all types of creative projects. Challenge yourself and your children to think of how many things you can make from these fun leftover materials before simply throwing them in the recycling bin.

Step 7

In order to provide more strength and to make the final device more water resistant the open corrugate sections need to be covered with glue and paper. Cover the exposed cardboard edges by applying white craft glue to 2½ inch strips of craft paper or paper bags (**IMAGE H**), and then applying these over top of the open corrugate. Make sure to cover all open corrugate as well as all exposed connecting edges between combined cardboard segments.

Helpful Tip:

- Use an old credit or gift card to spread the glue on the strip of paper (**IMAGE I**). The card can also be used to press and flatten the paper onto the cardboard after it is applied to make sure there are no gaps or air bubbles.
- To avoid the paper bunching on curved sections, lay the first half of the paper strip on the outer edge of the curve (**IMAGE J**). Then cut small slits halfway through the strip (**IMAGE K**). Lay the tabs down one-by-one as you work your way around the curve (**Image L**).

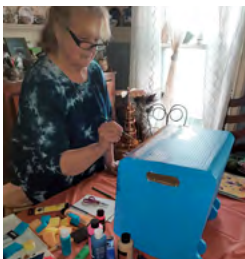


Step 8

Prime and paint your rocking perch! Use indoor/outdoor water-based latex primer and paint. Acrylic paints can also be used, especially for fine details on top of the base layer.

Step 9

Apply water-based polyurethane to make your rocking perch more water resistant.



Step 10

Insert plastic handle grommets. These handles are interlocking, so all you have to do is place one on each side of the cardboard where the handle cut-out is located and push them towards one another until they snap together.



Step 11

If you would like more cushioning on your seat, a yoga mat can be cut to fit the top face and can be fastened in place with hot glue.



The Family Fun series is a collaborative project of Golisano Center for Special Needs, Arise Adaptive Design, and David's Refuge.

More info: <http://FitnessInclusionNetwork.org>

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