

Adaptive Design: Versatile Tabletop Easel



This basic design gives your child more ease while drawing and painting. It is ergonomic in that you are able to change the angle and height of the easel for the artist's maximal comfort. It also allows him or her to prop up the artwork as he or she creates and to move away to look at things from a different perspective- an essential habit for any artist!

Adaptive design enables people to effectively and purposefully engage in activities. This includes recreational activities like reading, music, and art. This is an affordable and easy way to help your child as they express themselves through art. You can make this device at home with inexpensive, everyday household items. With this knowledge, you can also build many other similar DIY devices at home as your child develops and grows. The results are invaluable!



At CMA, we want each child to be able to “LOOK”, “MAKE”, & “SHARE”.

The three main ideas of adaptive design are:

1. The **PERSON**: Who is using the device? You can think about factors like age, gender, height, weight, and even personal interests: What does this person need and want in a design?
2. The **ENVIRONMENT**: What is the environment in which the person will be using the device? You can think about things like space and in what context the device will be used (at school, at work, at home?). Does it blend in and work well with the surroundings?
3. **UNIVERSAL DESIGN**: Can this device be used by anyone?

Versatile Tabletop Easel Construction

Recommended Tools & Supplies:

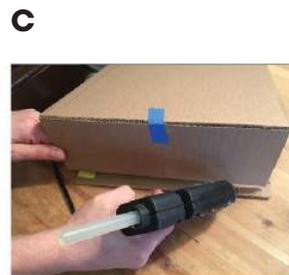
- Cardboard (approx. 11" x 28")
- Scissors, exacto knife, or box cutter
- Hot glue OR tape (e.g. masking tape, duct tape, or packaging tape)
- Pen/pencil
- Metal ruler or hard straight edge

Step 1: Measure dimensions shown on p.2 onto cardboard using a ruler and a pen (see picture A).

Step 2: Cut out the cardboard patterns. This can be done with a box cutter, exacto knife, or scissors depending on availability and tool preference.

Step 3: Put form together with small pieces of tape (see picture B).

Step 4: Once the shape is formed, use tape OR hot glue to seal all edges (see pictures C & D).



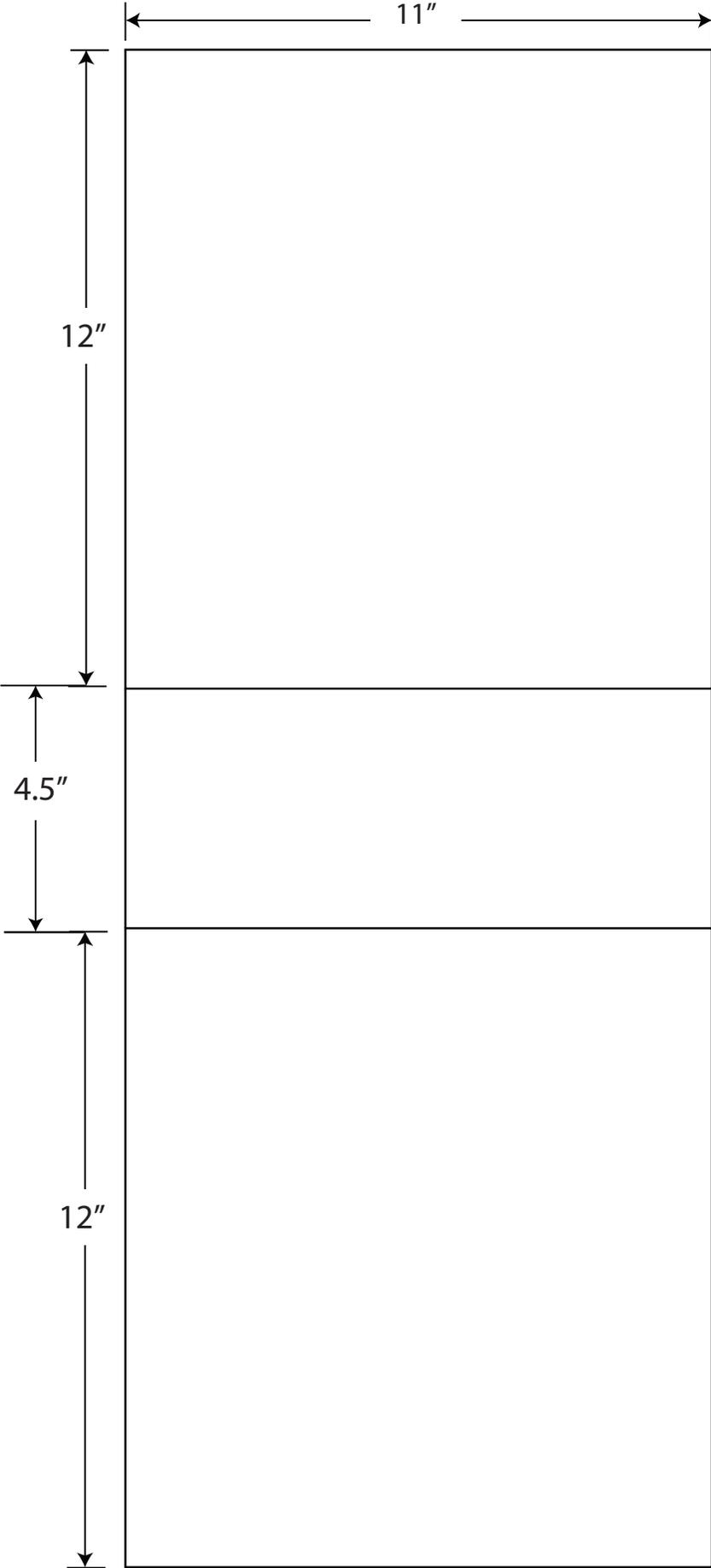
or



The *Art For All* program is made possible in part by the Institute of Museum and Library Services.

Versatile Tabletop Easel

Designed to hold an 8.5" x 11" sheet of paper



Adaptive Design: DIY Universal Cuff

This is an adaptive device that allows people who have difficulty with grasp and dexterity to hold objects such as pencils and paint brushes. It gives your child an accessible way to draw, color, or paint!

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3. **UNIVERSAL DESIGN**: Can this device be used by anyone?

DIY Universal Cuff Construction

Recommended Tools & Supplies:

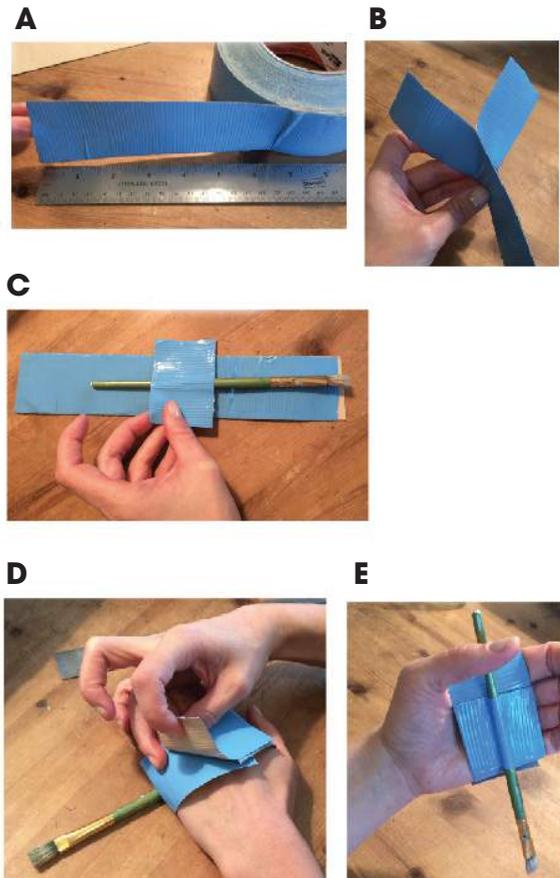
- Scissors
- 1”-2” tape (e.g. masking tape, duct tape, or contact paper)
- Pen
- Writing/painting utensil

Step 1: Cut two 6” x 2” strips of either masking tape, duct tape, or contact paper and place sticky sides against each other so there is no sticky side exposed (see pictures A & B).

Step 2: Wrap strip around the user’s palm and back of hand and mark with pen or marker how much excess strip to trim on back of hand.

Step 3: Firmly tape down the desired writing utensil or paintbrush onto center of tape/contact paper strip with the long side of the writing utensil following the length of the tape strip (see picture C).

Step 4: Wrap strip around user’s center palm and back of hand and tape ends together on back of hand (see pictures D & E).



Adaptive Design: Keyboard Guard



This adaptive device enables children to use a standard computer keyboard while minimizing errors. It blocks certain keys while allowing other keys to be open, enabling the user to press only the key that is needed at that particular moment. It can prove very beneficial for children with limited fine motor coordination working in the Media Lab!



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3. **UNIVERSAL DESIGN**: Can this device be used by anyone?

Keyboard Guard Construction

Recommended Tools & Supplies:

- Cardboard (approx. 12" x 12")
- Scissors, exacto knife, or box cutter
- Hot glue & hot glue gun
- Pen/pencil
- Metal ruler or hard straight edge

Step 1: Cut out the pre-made pattern on p. 2 (pattern is pre-made for a standard 11" x 5.25" Mac keyboard). Trace pattern onto cardboard (see pictures A & B).

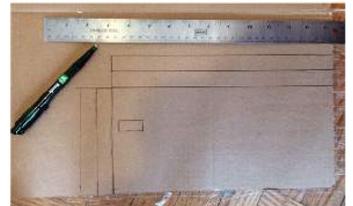
Step 2: Cut out the cardboard patterns. This can be done with a box cutter, exacto knife, or scissors depending on availability and tool preference (see picture C). You will have 5 pieces.

Step 3: Use hot glue gun to connect edges (see picture D & E).

A



B



C



D



E

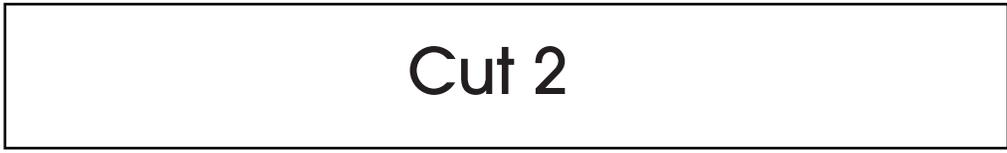
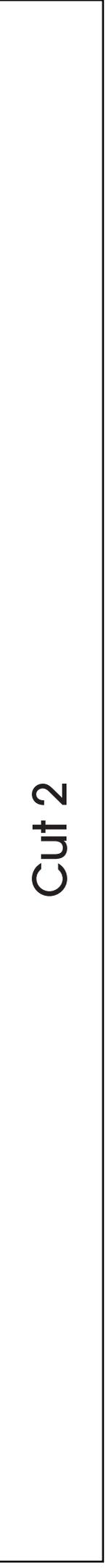
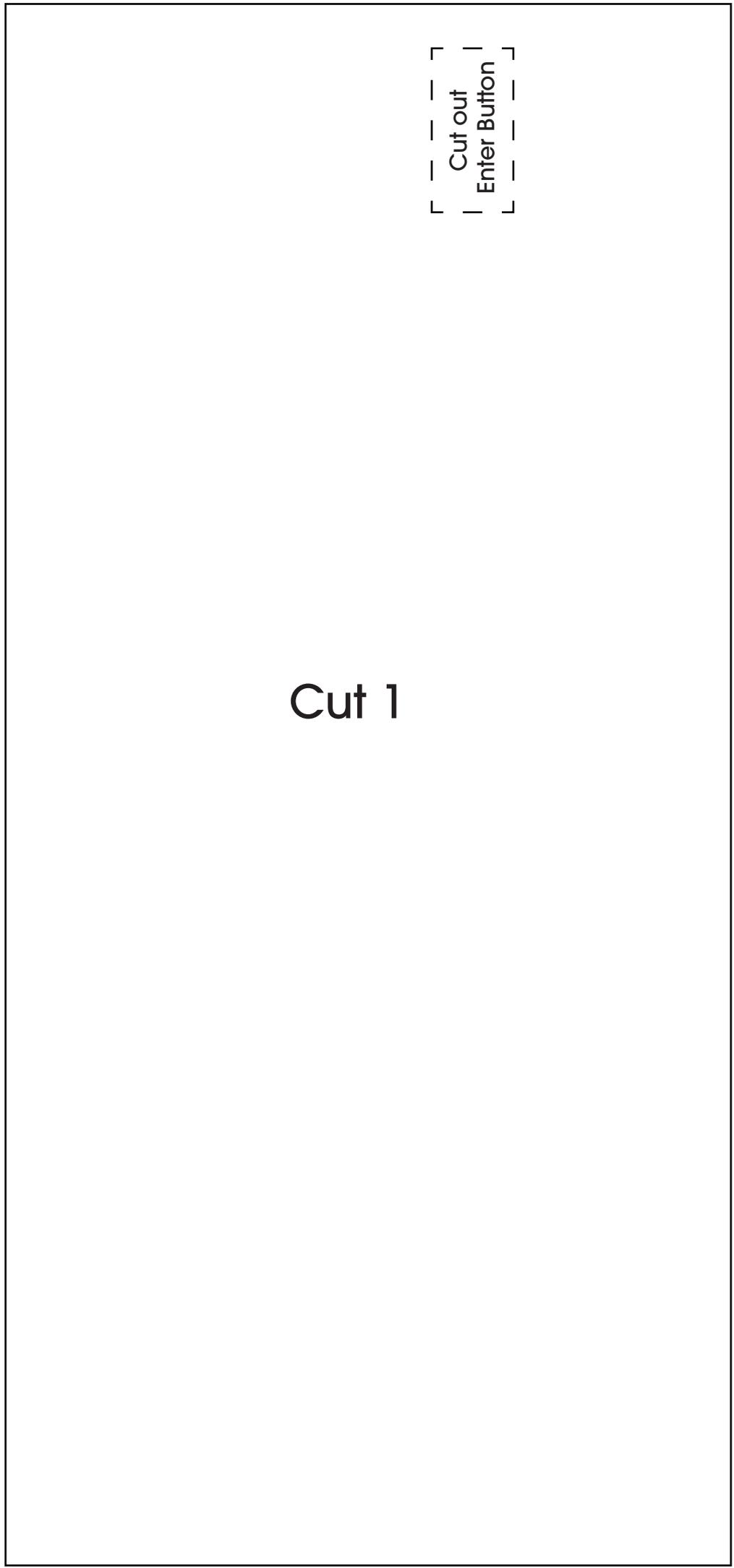


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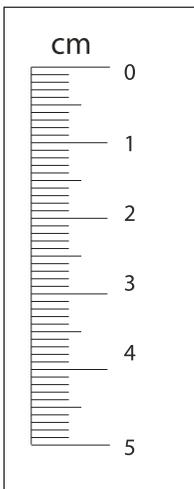
Keyboard Guard

Fits an 11.25" x 5.25" Apple Keyboard

Legal Size Paper: Actual size to scale



Actual Size to Scale



Adaptive Design: Craft Tool Organizer



This device enhances your child's creativity by giving them an organized way to choose their tools. Clean up a messy workspace and let the creative juices flow!

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3. **UNIVERSAL DESIGN**: Can this device be used by anyone?

Craft Tool Organizer Construction

Recommended Tools & Supplies:

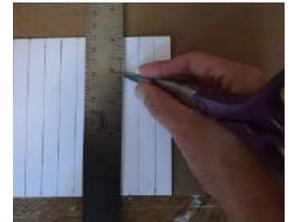
- Cardboard (approx. 11" x 20") OR paper towel roll
- Scissors, exacto knife, or box cutter
- Tape (e.g. masking tape, duct tape, or packaging tape)
- Hot glue & hot glue gun
- Pen/pencil
- Metal ruler or hard straight edge

Step 1: Measure dimensions shown on p. 2-3 onto cardboard using a ruler and a pen (see pictures A & B).

A



B

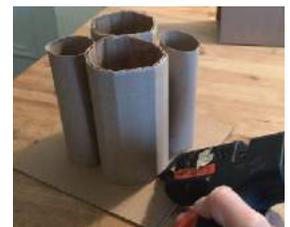


Step 2: Cut out the cardboard patterns. This can be done with a box cutter, exacto knife, or scissors depending on availability and tool preference.

C



D



Step 3: Using the blunt end of the scissors or pen, use a straight edge to make score lines in the cardboard (see picture B).

Step 4: Tack form together with small pieces of tape the nose a large piece of tape to seal edges together(see picture C).

Step 5: Once the shape is formed, hot glue cylindrical cups to base (see picture D).



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Craft Tool Organizer: Cups

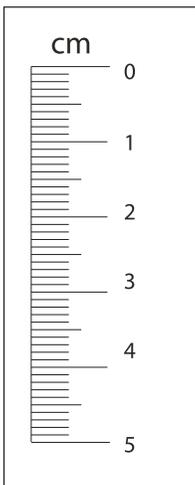
Actual size to scale

- - - - - Score Lines

Score Lines
(Do Not cut all the way through cardboard)

Cup Template

Actual Size to Scale



Craft Tool Organizer: Base

Actual size to scale

Base Template

Actual Size to Scale

