

Cardboard Tube Sculpture

Use construction techniques to create an abstract sculpture from cardboard tubes.



Alexander Liberman (American, born Russian, 1912– 1999), *Firmament*, 1969-1970, steel, paint. Museum purchase with funds provided by the National Endowment for the Arts and various funders. 1976.1

Materials Needed

- about 10: cardboard tubes
- paint palette or paper plate
- masking tape
- scissors
- pencil
- acrylic paint
- paintbrush
- cup for water
- paper towels



Optional

- ruler
- markers
- permanent marker
- extra fine point marker

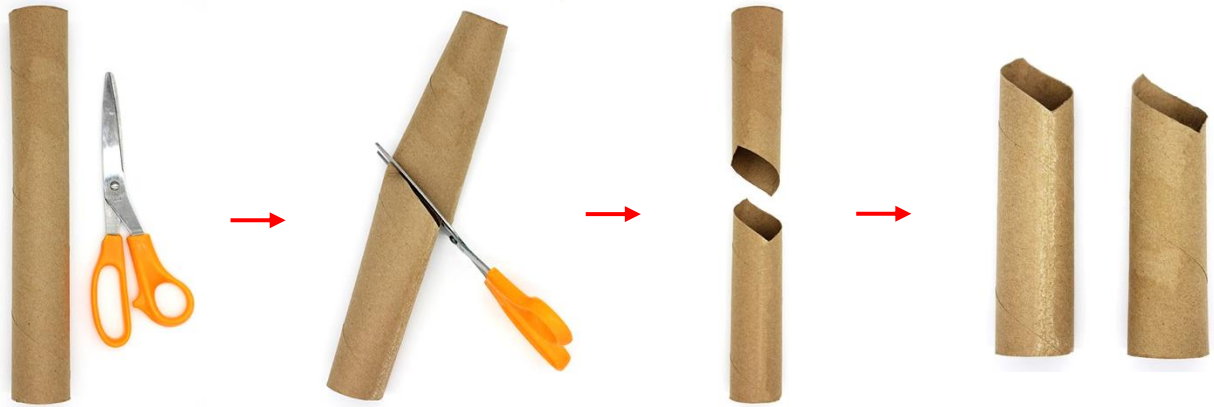


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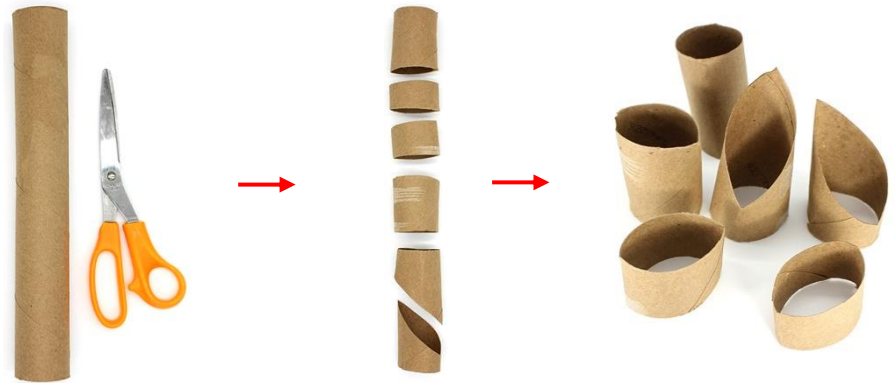
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Step 1

Gather cardboard tubes. Use the **cutting technique** for at least one tube: cut the tube in half at an angle. Save pieces for later use.



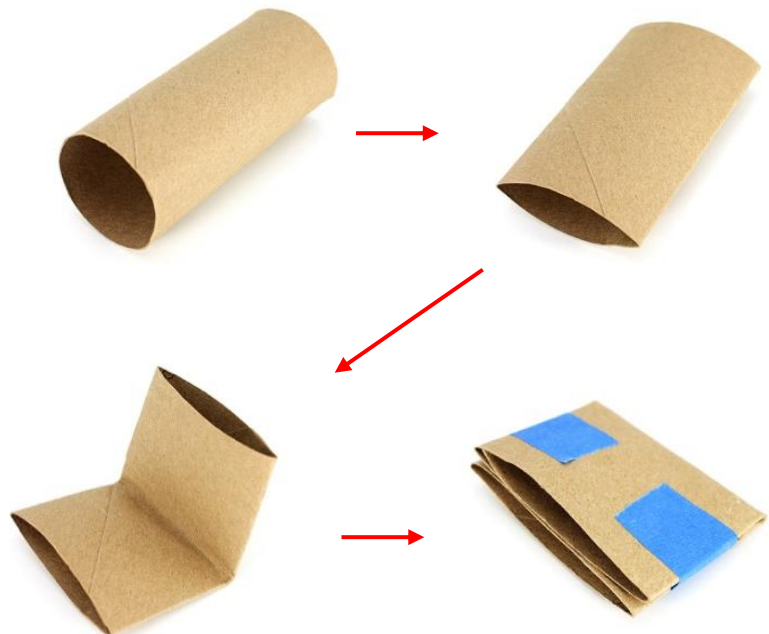
Helpful hint: you can cut multiple pieces from a tube for more shapes and possibilities.



Step 2

Use the **flattening and folding techniques** with a second tube. Flatten and fold it in half. Tape or glue the folded tube together. Save for later use.

Helpful hint: this technique strengthens the cardboard for more durable use (ex: as a sculpture base). If fold is not taped, the folded tube can also be used as an angled joint connector or as a movable hinge.



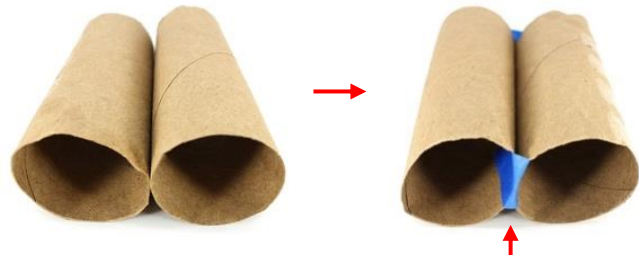
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Step 3

Select 2 tubes to combine with the **joining technique**. Place two tubes together, perpendicular to each other and tape at the connection point. Use a few layers of tape for a strong connection. Save for later use.



Helpful hint: tape can also be applied inside the tubes. This may be helpful when connecting tubes parallel to each other or to make sculpture sturdier. Use these connections often and on both ends of tubes for stability.

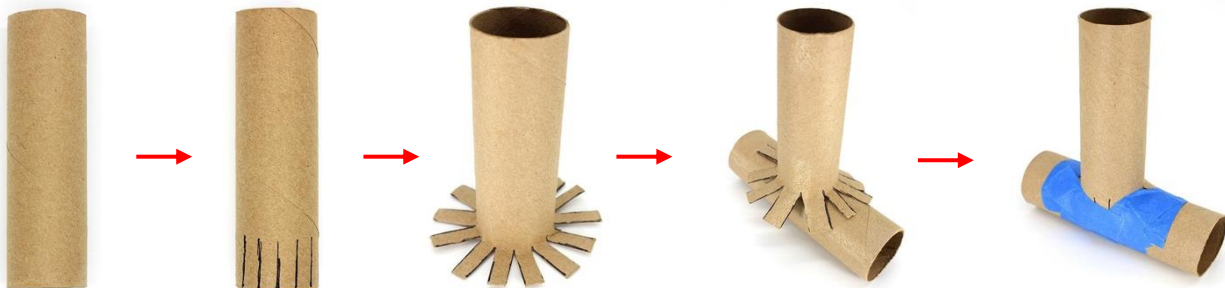


Step 4

Try creating **slot connections** with two tube pieces. Flatten and cut a slot into the bottom of one tube (this makes 2 slots). Gently squeeze to return it back to tube form. Slide the second tube into the slots of the other to connect both together. Save later use.



Helpful hint: use this technique to cut multiple slots (each approx. 1 inch), then bend outward and tape to another tube.



Step 5

Using any or all of the techniques in steps 1-4, cut and combine the remaining cardboard tubes to create your abstract sculpture. Use your imagination, continue experimenting, and have fun!

Helpful hint: try different arrangements before committing to a final construction.

Helpful hint: for best support, tape the sculpture to a base or have at least 3 points of contact to a flat surface to prevent from tipping over.



Step 6

Add color with acrylic paint. Apply paint in several thin layers. This keeps the cardboard more dry and durable. Use just one or several different colors as desired.

Helpful hint: paint all sides, interior and exterior areas to fully cover the sculpture and hide any tape. Use extra coats of paint over taped areas.

Helpful hint: use a small paint brush to reach inside the tubes.

Helpful hint: for best color effect, use contrasting colors (ex: red vs. green, blue vs. orange).



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Step 7 (optional)

Use markers to draw details and patterns or add further decoration to your sculpture.

Helpful hint: for best results, allow sculpture to dry fully before adding marker. A hairdryer can speed up the drying process.

Helpful hint: for best results, use dark colored permanent markers on a light-colored paint surface.

Helpful hint: draw designs that complement the form of the tubes (ex: lines parallel to the tube or lines that curve around the tube surface).



Extra Challenge

Create a new abstract sculpture using only 3 tubes.

Use these techniques to create an animal, plant, or insect sculpture

Create a very large sculpture with other cardboard materials in addition to tubes.

Resources

[Learn another cardboard sculpture technique](#)

[Learn more about Alexander Liberman](#)

[See more views of Alexander Liberman's sculpture *Firmament* at the DAI](#)

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