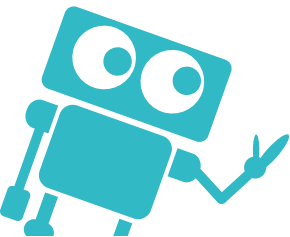


T

Tinker

4

Points



## Makedo

Kinetic Art with Makedo

Build a sculpture that has kinetic components within it.

MackinMaker

# T

Tinker

# 4

Points

## Materials:

- Cardboard
- Makedo connectors and tools
- Markers, paper, tape, and/or other optional materials for decorating

## Quick Start:

1. Collect scrap cardboard and a set of Makedo connectors and tools.
2. Test out some of the tools. How can you use the screws and make pieces of the sculpture move?
3. Draw out a quick idea of your cardboard sculpture.
4. Build your sculpture and add in kinetic features as you go.
5. Add color and other design elements as time allows.

## Hints and Tips:

- The punch tool helps to make holes in cardboard so that the screw fasteners can really bite in.
- Regular scissors can be challenging when cutting cardboard. Instead try to use tools

designed to cut cardboard like the Makedo cardboard saws or box cutters.

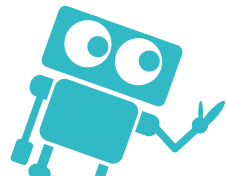
- Having trouble designing your sculpture? Look at other sculptures that have kinetic components to them. How can you imitate parts of them in your own design?
- Need additional support or direction? Check out this site that has a bunch of video tutorials on using the Makedo tools and making different projects:

<https://know.make.do/collections/how-to>

## Extended Challenges

**English/Language Arts:** Choose a book that you have recently read or that you have enjoyed. Create a kinetic object that represents that story or a part of that story. Be prepared to share how your sculpture relates to the story you chose.

**Art:** Research some famous Kinetic Art artists. What mediums do they use? How do they use science in their work? If time allows, create a cardboard piece inspired by your favorite artist.

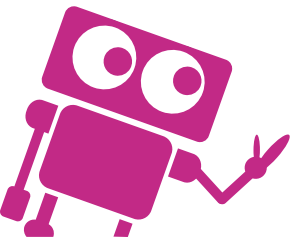


S

Skill-Up

10

Points



## Makedo Device Stand

Create a stand for a device  
that you use frequently.

MackinMaker

S  
Skill-Up

10  
Points

## Materials:

- Cardboard
- Makedo connectors and tools
- Markers, paper, tape, and/or other optional materials for decorating

## Quick Start:

1. Choose a device (laptop, cell phone, remote control, etc.) and brainstorm a design for your stand.
2. Collect scrap cardboard and a set of Makedo connectors and tools.
3. Build your device support stand and think about the function as you go. What angle should the device rest at? How can you build something to ensure it stays in place?
4. (Carefully) test your device support stand. Does it work? If not, keep tinkering with it!
5. Add color and other design elements as time allows.

## Hints and Tips:

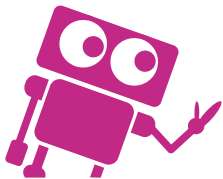
- The punch tool helps to make holes in cardboard so that the screw fasteners can really bite in.
- Regular scissors can be challenging when cutting cardboard. Instead try to use tools designed to cut cardboard like the Makedo cardboard saws or box cutters.
- Need additional support or direction? Check out this site that has a bunch of video tutorials on using the Makedo tools and making different projects:

<https://know.make.do/collections/how-to>

## Extended Challenges

**Science:** Research other device stands and analyze the design of their tool. What features do they have? What materials do they use? Brainstorm how you might incorporate some other design elements into your own work.

**Science:** What other kind of inventions/tools are helpful? Think of something that would help you or someone you know and prototype a tool to support you/them.

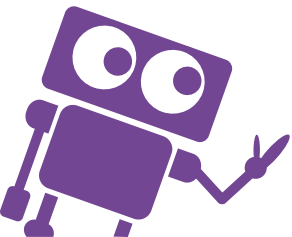


D

Design

13

Points



## Makedo

### Architecture of your Dreams

You are an architect. Design and build a unique structure of your choice. Will you create a home? A museum? A new stadium? It is up to you and your interests!

MackinMaker

D  
skill-Up

13  
Points

## Materials:

- Cardboard
- Makedo connectors and tools
- Markers, paper, tape, and/or other optional materials for designing and decorating

## Quick Start:

1. Collect scrap cardboard and a set of Makedo connectors and tools.
2. Brainstorm what type of building you are creating and draw out ideas for your cardboard structure design.
3. Build your structure and add in architectural features as you go.
4. Add color and other design elements as time allows.

## Hints and Tips:

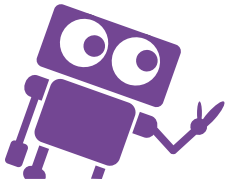
- The punch tool helps to make holes in cardboard so that the screw fasteners can really bite in.

- Having trouble designing your structure? Look at other structures that have the same function to get some design ideas. Think about how the user interacts with the space as they are in it.
- Need additional support or direction? Check out this site that has a bunch of video tutorials on using the Makedo tools and making different projects: <https://know.make.do/collections/how-to>

## Extended Challenges

**Social Studies:** Design a memorial to commemorate something from throughout history. How can you design something to help represent an event and making sure it honors the people involved?

**Art:** Research famous structures and/or architects that you've seen or heard of. Can you build something that is similar in design?

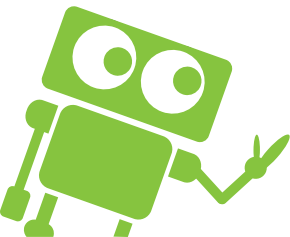


G

Global

19

Points



## **Makedo** Signs of Support

Build a sign of support or display for something you believe in.

Mackin**Maker**

## Materials:

- Cardboard
- Makedo connectors and tools
- Markers, paper, tape, and/or other optional materials for decorating

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## Quick Start:

1. What will your sign/display communicate? Brainstorm issues you care about that are occurring in your community or in the world.
2. Sketch out your ideas, and make a plan for building with cardboard.
3. Collect scrap cardboard and a set of Makedo connectors and tools.
4. Build your sign/display. Add features as you go.

## Hints and Tips:

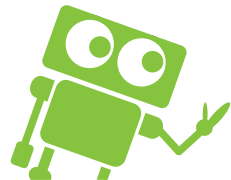
- The punch tool helps to make holes in cardboard so that the screw fasteners can really bite in.
- Need additional support or direction? Check out this site that has a bunch of video tutorials on using the Makedo tools and making different projects: <https://know.make.do/collections/how-to>

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## Extended Challenges

**English/Language Arts:** Think of a story you are reading or have recently read. What was a problem in that story? Can you create a sign or 3D model using Makedo that explores one of the problems the characters were dealing with?

**Science:** Create an informative object that educates people on climate change. Can you make it interactive?



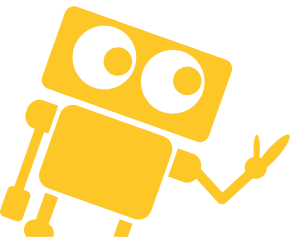


I

Innovator

22

Points



## **Makedo** **Cardboard Chair**

Can you build a cardboard chair? Either prototype a new design for a chair, or build one that a friend can actually sit in.

Mackin**Maker**



## Materials:

- Cardboard
  - Makedo connectors and tools
  - Hot Glue (recommended)
  - Markers, paper, tape, and/or other optional materials
- 

## Quick Start:

1. Collect scrap cardboard and a set of Makedo connectors and tools.
  2. Draw out a quick idea of your cardboard chair. Where will Makedo screws connect the cardboard? How can you design your chair to hold the most weight?
  3. Build your chair and test it (carefully) as you go.
  4. Does it work? How can you improve it?
- 

## Hints and Tips:

- Need additional support or direction? Check out this site that has a bunch of video tutorials on using the Makedo

tools and making different projects:  
<https://know.make.do/collections/how-to>

- The punch tool helps to make holes in cardboard so that the screw fasteners can really bite in.
- For specific help on building a cardboard chair, visit the Instructables sites below:

<https://www.instructables.com/Designing-a-Functional-Cardboard-Chair/>

<https://www.instructables.com/Makedo-sitting-stool/>

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## Extended Challenges

**Science:** Done with your chair? Design a table to go with it, or another type of furniture you are interested in creating.

**Social Studies:** Do some research on a time period of your choice, and prototype a piece of furniture that is modeled after a design from that time.

