

# Girl Scout Juniors

## Coding for Good: Coding Basics (Badge 1)

### Step 1: Create algorithms for a computer that follow a sequence in the Robots and Circuits Area

- A computer can only do exactly what you tell it to do, in exactly the order you tell it. The directions that programmers write are called algorithms. The order of the directions is called a sequence. Now it is your turn to create an algorithm for a small computerized robot in the Makers Space 'Robots and Circuits' section, choose from either the Ozobot, Botley, or Code and Go Mouse and code a simple set of directions for the robot to follow. Need Help? Ask a MADE mentor for help!

## Robotics: Designing Robots (Badge 2)

### Step 4: Create a prototype in the Makers Space

- Engineers create prototypes, a quick way to show an idea to others or to test it out. Prototypes can be as simple as a drawing or created with common materials, such as cardboard, paper and string. Visit the Makers Space center and utilize the materials available to create a prototype of a robot.

## Drawing

### Step 1: Experiment with different materials in the Art Studio

- What you use to draw can have a major effect on how your picture looks! In the Art Studio, choose three different mediums, or materials, to work with. Draw the same still life or portrait three times using a different medium each time. What do you like or dislike about each material?

### Step 2: Learn how to add shading in the Art Studio

- Shading is a major part of drawing that allows the artist to add highlights and shadows. Shading adds depth to a picture making it look three-dimensional and realistic. In the Art Studio using oil pastels or chalk, try the smudging technique to add shadows to a landscape or still life drawing. Need help? Ask a MADE mentor for some tips!

### Step 3: Get some perspective in the Art Studio

- Visit the Art Studio to create a "Zoomed In" drawing! Choose an object, either from your own bag or something from around the room, to observe and draw. Pick a part of your object to zoom in on. Enlarge that area when you are drawing to fill your entire paper. Don't forget to add lots of details to make your viewer feel like they are focused in on your object.

### Step 4: Use your imagination like a graphic artist in the Art Studio

- Draw a new cover for your favorite book. As a graphic artist, you need to create visual art that communicates a message or idea. How can you show the theme of a book using only images? Are there important characters or settings you need to include. Look at some of the storybooks around the Art Studio to gain inspiration before you begin your own design!

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## Business Jumpstart

### Step 1: Create a prototype that solves a problem in the Makers Space

- Entrepreneurs solve problems and make our lives better by creating something new or looking at familiar product to find new possibilities. What are some things you could improve or ways you could help? Maybe a family member is always losing their keys, or you could come up with a way to make street crossing safer. Come up with an idea and make a prototype using the materials in the Makers Space. Need inspiration? Check out our wall of local Entrepreneurs in the Design Lab.

### Step 2: Get feedback

- When someone gives you opinions or information, or offers you a way to make something better, that's called feedback. Share your prototype with friends, family or a MADE mentor and ask for feedback. What do they like about your idea? What might they do to improve it? Take notes about what you learn.

### Step 3: Revise your prototype in the Makers Space

- Ideas are almost never perfect the first time. This means you can keep improving them! Take a look at the feedback you received and make the changes you think will improve your product. Your changes might include things like adding something new, rearranging your design, or substituting one thing for another.

### Step 4: Come up with a pitch in the Design Lab and Art Studio

- When you see a salesperson explaining a product and asking you to buy it, that's called a pitch. Decide who your customers are and make a list of all the reasons they will want your product. Use that information to get your customers excited about your product! Create a poster or an ad in the Art Studio that includes everything you believe will sell your product, service or technology. Visit the Design Lab to make a button/pin that will help market your product!