

# MAKERS MANUAL #47

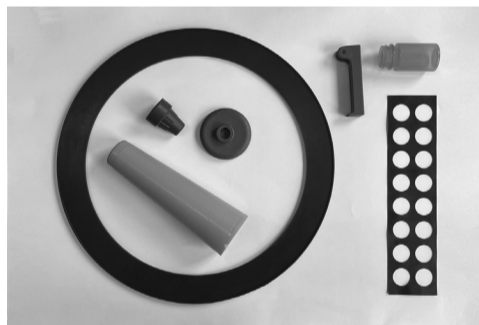
## Earnest Studio



# SCRAP MOBILE

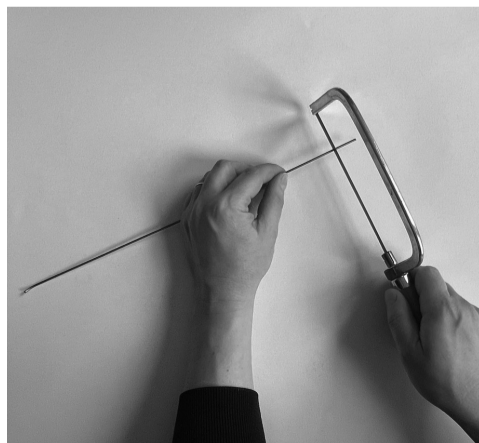
### INTRODUCTION

A mobile is a moving, hanging sculpture which creates an endless choreography of light, shadow and graphic composition. Mobiles can be built in many ways, from many materials, with the choice of form, weight and position playing a decisive role in the movement and behaviour of the construction. Here, we will create mobiles from scrap material, using the unique properties of each piece to best advantage.

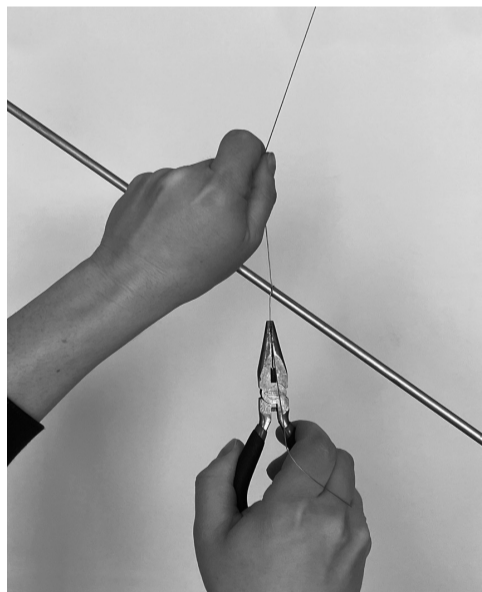


**STEP 1**  
Gather a collection of scrap materials and/or objects. The more variety in scale and material, the better.

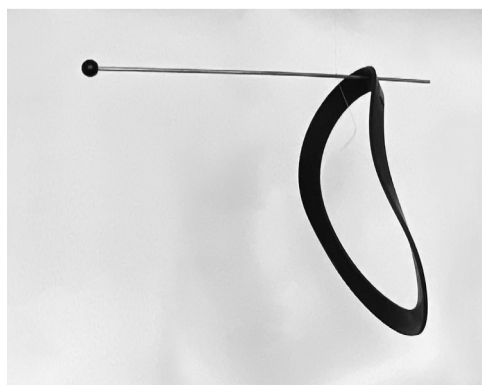
**STEP 2**  
Using the ladder or step stool, hang a length of stainless steel cable from a hook in the ceiling. Make the cable long enough so that you can easily reach (and work with) the loose end from a standing height.



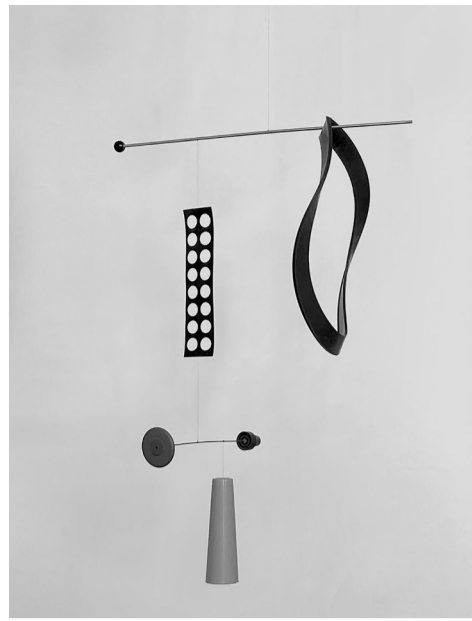
**STEP 3**  
Using the hacksaw, trim the aluminium rod to a length of approximately 70cm. Tie the cable around the middle using a simple half-knot. Tighten (but do not complete) the knot by pulling on the end with the pliers. If the rod is leaning up or down, slide the half knot left or right until it is in balance. Tighten the half knot again if necessary.



**STEP 4**  
Begin to design your composition. Select two scraps and attach them to either end of the aluminium rod. This can be done by drilling a hole in the scrap and threading it over the rod directly, or by tying it to the rod with another length of stainless steel cable. If the material is soft, you can create a smaller hole using the needle. Once you have chosen and positioned the first two scraps, rebalance the rod again by sliding the half knot left or right. Tighten the half knot again if necessary.



4



### LIST OF THINGS

#### MATERIALS

- Scrap materials and/or objects
- Stainless steel cable (5m, ~0,5mm Ø)
- Aluminium rod (2m, ~3mm Ø)

#### TOOLS

- Hacksaw
- Drill and drill bits (~3mm Ø)
- Needle
- Pliers
- Scissors
- Ladder or step stool
- Masking tape
- Super glue

### BIO OF THE DESIGNER

Earnest Studio was founded by American-born, Netherlands-based designer Rachel Griffin. Its work applies themes of modularity and multiplicity to a spectrum of projects—ranging from theory, to limited editions to serial productions—following a fascination for simple, flexible structures with a forthright attitude towards material.

### FURTHER READING

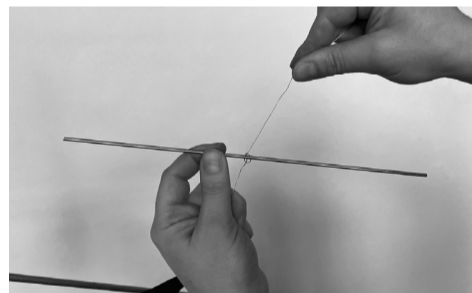
Once you have a clear understanding of the construction process, you can explore more with design. Continue to experiment with different objects, compositions and constructions. Look into kinetic sculpture and the work of Alexander Calder and Bruno Munari for further inspiration.

Makers Manual is a collaborative project between exciting makers and STORE STORE. This is a collection of manuals encouraging people to make objects from what is around them. These manuals are both a practical guide to making for beginners and experts, and a journey into the designers' practice. You can share your creations using #makersmanual.

This project is supported by G.F Smith.

**STORE STORE**

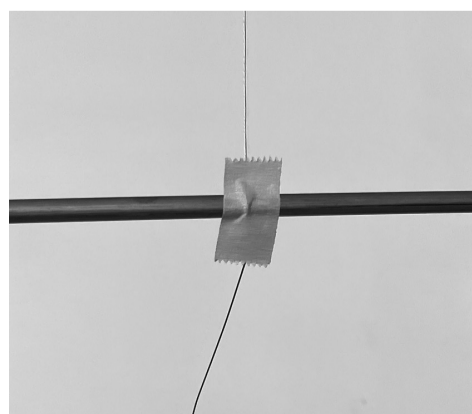
www.storeprojects.org  
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5.1



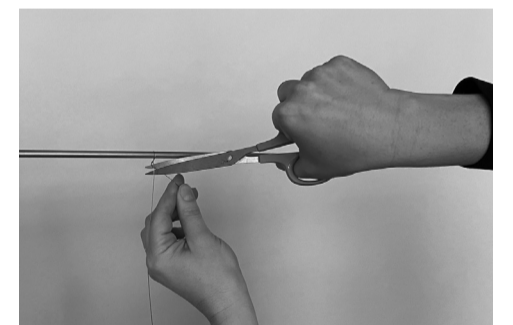
5.2



5.3

**STEP 5**  
Repeat steps 2, 3 and 4 at least two more times. However, instead of attaching the cable to the ceiling, attach it to the previous

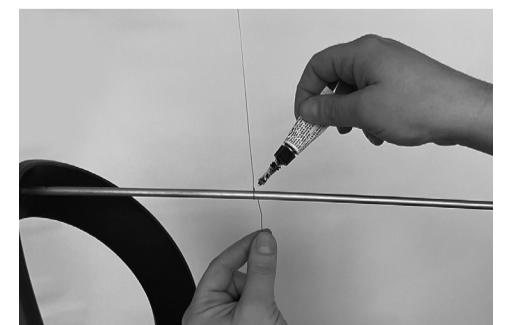
aluminium rod with another half knot. Trim these next aluminium rods to any length that suits the composition. As you work, continue to slide the cables left and right on the rods until you find the right balance. When balancing, remember to start at the bottom. If your cables are sliding too much as you work, temporarily secure it in place with a small piece of masking tape.



6

**STEP 6**  
Once you have found a composition that you like, tighten all of the half knots, and secure them with a second half knot on top of the first, to create a full knot. Tighten this full knot with the pliers and trim any loose cable ends with scissors.

**STEP 7**  
Use a dot of super glue to secure any loose parts.



7

**STEP 8**  
Give the mobile a gentle spin to see the finished effect.

