

## Drawing Robot

### Materials:

1. Small cup
2. Masking tape
3. 3-4 color markers
4. 1.5 v motor (can source from an old electric toothbrush)
5. AA battery
6. Decorate: sticks, cut paper, bottle caps, rocks, dry grass, etc.

### Steps:

1. Tape motor to top of cup. (Make sure that the motor can spin freely where you attach it and that you leave space for the battery.)
2. Tape battery to top or side of cup. (Make sure you can access the positive/negative ends of battery because you will need to tape/attach motor).
3. Remove caps from markers. With marker tips down, tape so that markers (or “robot legs”) are evenly spaced around cup.
4. Test by taping motor wire to positive and negative ends of battery. How does it move? Do you need to adjust legs? Re-tape anything? You can attach things to motor or to side of cup to make robot wiggle more. How can you make adjustments to the robot?
5. Decorate your robot. Don't forget to name it!

### Tip: Eccentric Weight

The secret to make your robot move and doodle is *eccentric weight*, which means not placed centrally. You need to attach some weight to the motor (ex. coin, clay, a cork). Without this weight the motor will spin freely and remains balanced. Attaching weight to it will make it spin off-balance. Adding different weights will create different movements. Experiment with different objects to change what your robot draws.

**Take a picture or a short video of your drawing robot and post it to social media, then tag us [@uazmuseumofart!](https://www.instagram.com/uazmuseumofart/)**