

Classy Art Bot



Our Classy Art Bot instructions will show you how your students can build an Art Bot of their own for a fraction of the cost of last month's Fidgety Art Bot.

Whether you choose to follow our instructions exactly or alter the design to fit your needs we hope your students enjoy the colorful artwork these inexpensive, less complicated Art Bot's can still produce.

Step 1 - Supplies:

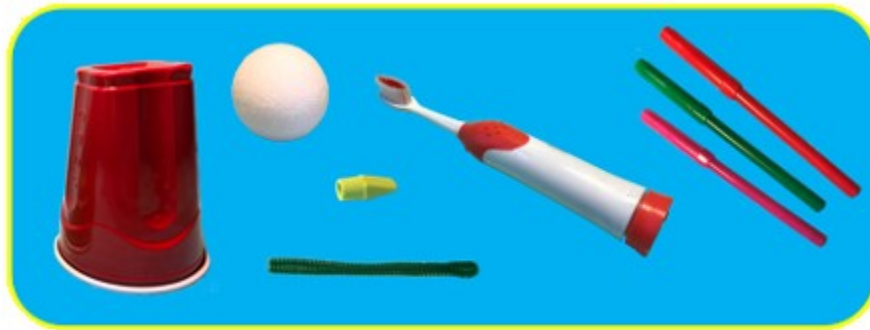


Image 1.1

Our goal during this investigation was to cut the supply list down to a minimum. Feel free to add more features if your budget allows.

Note: If you look at our Mystery Art Bot you can see what a few additional supplies and a creative imagination can achieve.

1.1 We found the 9-ounce squared SOLO cup was the ideal size and shape for our Art Bot.

1.2 We purchased our 2 1/2" Styrofoam balls at the local craft store with a coupon to make them cost effective. If that isn't an option for your classroom we recommend you use the pipe cleaner agitator design. It's inexpensive and will allow your students to change their Art Bot's path on the fly.

1.3 You will also need electrical tape, Instant Tacky Adhesive Dots, scissors and a glue gun to complete this project.

Step 2 - Testing:

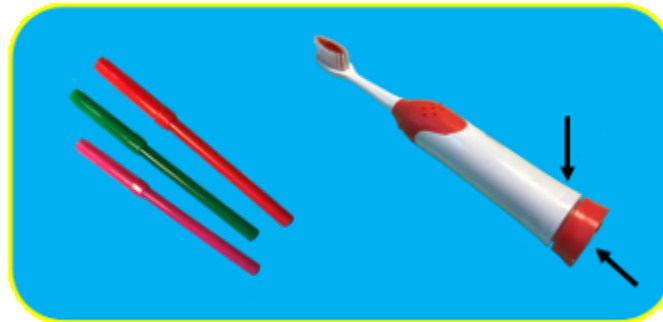


Image 2.1

2.1 Test the battery powered toothbrush. The On/Off switch was located at the bottom of our toothbrush with arrows to line up after changing the batteries. If your toothbrush is not vibrating, make sure your arrows are lined up properly before switching to a new battery.

2.2 You should also test your felt tip markers, even if they are brand new. Some of the lighter colors don't show up as well which could create less colorful artwork. We preferred to use the brighter colors on this project.

Step 3 - Prep Work:



Image 3.1



Image 3.2

3.1 The head and neck of the toothbrush need to be removed just above where the shaft on the motor axle is located. We tested this step with both a saw and a PVC pipe cutter. Both methods worked without any problems, but the pipe cutter was quicker and easier (**Image 3.1**).

3.2 If cost is an issue, the Styrofoam ball can be cut in half. Check out our Mystery Art Bot if you'd like to see what a half circle head would look like.

Step 4 - Build:



Image 4.1



Image 4.2



Image 4.3



Image 4.4



4.1 The squared SOLO cup comes in a variety of sizes, but we used the 9-ounce cup for this Classy Art Bot (**Image 4.1**).

4.2 Use a marker to draw a 1 1/2" X on the bottom of the cup. The X fit perfectly on the indented section of the squared 9-ounce cup (**Image 4.2**).

4.3 Carefully cut along the X from the previous step and gently lift the triangular sections created from the cuts. This will create the opening needed for the top of the toothbrush so be careful not to lift the triangular sections too far (**Image 4.3**).

4.4 If you haven't already tested your battery powered toothbrush, be sure to test it now. It will be harder to trouble shoot any problems once the toothbrush is attached inside the Art Bot body.

4.5 Starting from inside the cup, slowly push the top of the toothbrush through the opening at the bottom of the cup created in step 4.3 (**Image 4.4**).

Note: Be sure enough of the toothbrush is through the opening so it can be secured with electrical tape. We found pushing the toothbrush through until the top of the motor was even with the tip of the triangular sections worked well (**Image 4.4**).



Image 4.5



Image 4.6



Image 4.7



Image 4.8



4.5 Wrap a 5" piece of stretched electrical tape around the motor as well as the triangular sections from the opening you cut earlier. Be sure the tape is attached securely to the toothbrush and cup bottom (**Image 4.5**).

Note: During our Fidgety Art Bot investigation we discovered that the electrical tape adhered best when it is stretched first.

4.6 If you haven't tested your felt tip markers yet you should do that now. Lighter markers may not create the colorful artwork you're hoping for.

4.7 Use stretched electrical tape to attach three marker legs, evenly spaced, to the inside of the cup (**Image 4.6**).

Note: Have your students use two pieces of tape on each leg so the legs don't come loose during the wobbling movement.

4.8 Use the marker covers as a guide to make sure the marker legs are the same length (**Image 4.7**).

4.9 Use the utility knife to remove just enough of the Styrofoam ball to fit a pencil cap eraser. Use hot glue to hold the eraser in place (**Image 4.8**).



Image 4.9



Image 4.10



Image 4.11

4.10 Gently push the eraser over the weighted shaft located on the axle of the motor (**Image 4.9**).

4.11 Have your students decorate their Styrofoam ball any way they'd like. We found that Aleene's Instant Tacky Adhesive Dots worked well on the Styrofoam balls (**Image 4.10**).

Note: Remind your students that the Styrofoam ball will act as their agitator. The more wobbling movement they can create with off centered pipe cleaners the more interesting art work they will create.

4.12 We designed hair from pipe cleaners, keeping one pipe cleaner extra-long so we could alter its position at any time (**Image 4.10**).

4.13 If Styrofoam balls are too expensive for your classroom budget, your students can attach a pipe cleaner directly to the pencil cap eraser with a small piece of stretched electrical tape (**Image 4.11**).