Doodlebots

Activity Provided by

Maria Mitchell Association

Materials:

Section of pool noodle, electric toothbrush with battery, 3 or more markers, 3-4 rubber bands
Optional: Googly eyes, feathers, pompoms, or other decorating items to make your doodlebot more fun

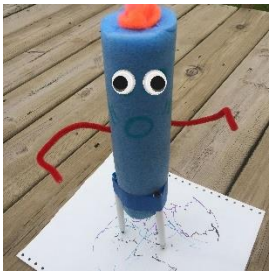
Instructions:

1. Insert your battery into the electric toothbrush to make sure it works. If not, you may need to replace the battery.

2. If you want to decorate your robot (pool noodle) with items from home, this is a good time to do it.
3. Push the toothbrush down through the center of the pool noodle so the bristle end of the toothbrush is at the bottom and power button is accessible near the top.
4. Using rubber bands, attached all three markers around the pool noodle. Make sure they extend past the bottom of the pool noodle by 1-2 inches and make sure they are equally distanced apart so your robot will be balanced. Your markers have two different ends. Start off by putting all of the same sized ends at the bottom of your doodlebot. Note: If your rubber bands don't hold the markers as tight as you want, masking tape should also work.
5. Place a plain piece of paper on the table, take off the marker caps and stand it up on the paper. Adjust the markers as need to make sure it is balanced.
6. Turn on the brush and let the fun begin!

Try these challenges or come up with more on your own:

- Add more markers around the robot
- Try different sized markers
- Make your robot taller or shorter by moving the markers. How do all of these change your design?



Why is this important?

You are combining Art and Engineering (two focuses in STEAM education) to make your own drawing machine. Both of these help us to think more creatively and help us with problem solving.

This could be you!

Avye Couloute is a multitalented 13-year-old, with a passion for coding from the age of 7. Avye founded Girls into Coding which is a volunteer event series empowering girls with the tools and skills to get in the tech industry. She has facilitated online and offline robotics workshops as well as raising money to provide textbooks and computer starter kits. Avye, a Gen Arm 2Z Ambassador, is also the recipient of The Diana Award's Legacy Award and the winner of the 2020 FDM Everywoman in Technology Awards.

Participate and Win Prizes

Scan this QR code and fill out a quick questionnaire to be entered to win a prize for participating in the Nantucket Science Festival 2021!

Another way to win prizes: Video and Photography Contest!

Take part in this science festival **technology** challenge. Make a video or shoot photographs of you or others engaged in STEAM (Science, Technology, Engineering, Art, Math) activities, post it on FaceBook or Instagram with #ACKSciFest and tag @The Maria Mitchell Association and @Nantucket Community School and be automatically entered to win one of our great prizes. You can do this activity, choose another from https://www.mariamitchell.org/nantucket-science-festival or come up with your own experiment or challenge.

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