How to make your own... ArtBots Learn more on our <u>Maker Club Blog</u>!



MATERIALS:

- Plastic cup
- Duct tape
- Electrical tape
- Three markers
- Cork
- AA battery
- <u>AA battery holder</u> (optional)



- <u>1.5 3V mini motor</u>
- Thin insulated wire with alligator clips
- Lots of paper!



STEP 1:

Use duct tape to tape your three markers onto the outside of the cup at roughly equal distances from each other.



STEP 2:

Put your AA battery in the battery holder, if you're using one. Use the electrical tape to secure the battery to the side of the cup. If you aren't using a battery holder, you won't have lead wires on your battery already! You can also use electrical tape to just tape the ends of your wires to the ends of the battery.

STEP 3:

Tape your motor to the edge of your cup with duct tape, and push the cork onto the rotating shaft of the motor. If you are clipping wires onto your motor, now is the time!







STEP 4:

What's left to do? We need to connect our power source to our motor! Complete the circuit by connecting the wires from your battery to the wires coming off the motor and then...



CHALLENGE:

How can you change the movement of your ArtBot?

The ArtBot moves because the spinning cork puts it slightly off-balance and starts to shake it around. You can see in some of the video that I added aluminum foil to the cork to change the balance. How else can you change the balance? Could you add more markers? Move the battery or the motor? Check it out for yourself!





TAKE IT TO ANOTHER LEVEL!

Soldering is the process of joining together two or more metal items by melting and flowing a filler metal (called solder) between them! It involves high temperatures and molten metal, but it is actually pretty easy to do (at least to do poorly – my joints work but aren't exactly pretty!). Consider buying a soldering iron, and trying it out for yourself. There are a <u>ton of instructions online</u>, or you could check out a local maker group like <u>Port City</u> <u>Makerspace</u> in Portsmouth, NH, and see what resources they have available!

