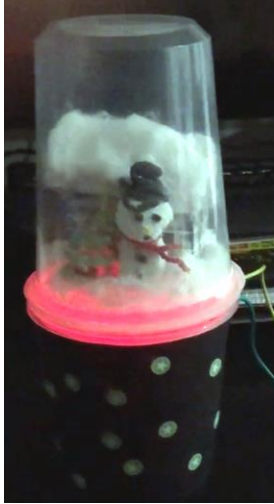


## How to Make a Snow Globe with Music and Light Using Microbit



Video:

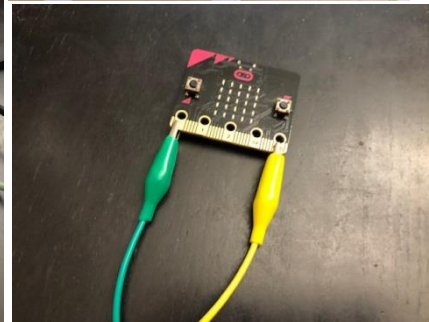
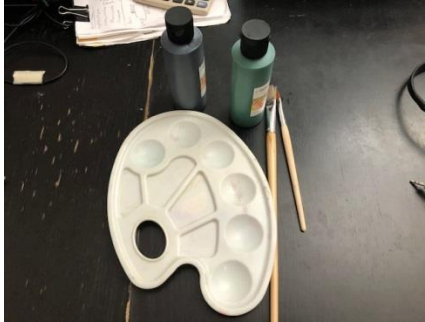
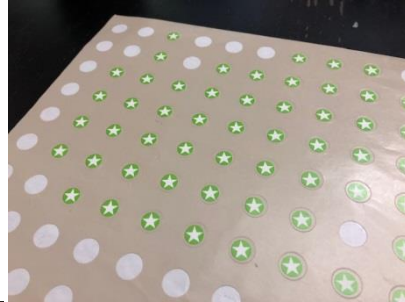
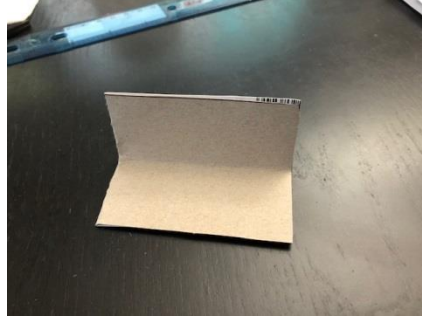
Main video: <https://www.youtube.com/watch?v=ztZvRTdk30o>

Microbit Music: <https://www.youtube.com/watch?v=zM9UzvyqqfA>

For years, I have been fascinated with the snow globe. I always wondered how to make it by myself. When I searched on Google, there are tons of tutorials making the snow globe. Yet, there are so many different styles and materials. Because my mom had graduated from an economics major, she always taught me to use resources as little as possible for a result that is as best as possible. So, I decided to make a snow globe that used materials that I have, without wasting any money. Here I share my work and hope you all enjoy and like it.

### **Prepare and set up all the materials**

Here are all the supplies and materials that I used for making this snow globe.



[Microbit](#) (and power battery supply)

Cotton balls

Watercolor paints and supplies (I use black and green paint)

2 plastic Jars (You can use whatever jar you have, such as mason jar, baby food jar, cookie jar, etc., as long as the jar is transparent.)

[Cubic blocks](#)

Glue (You can use [Elmer's Glue](#) or UHU's. I used [UHU](#) for the glue in this project because it dried fast and strong, but it has a pungent smell.)

Scissor

Some [Pipe Cleaners](#)

Headphone

A paper (I paint it with black paint)

Star stickers

Ruler

A little bit of flour

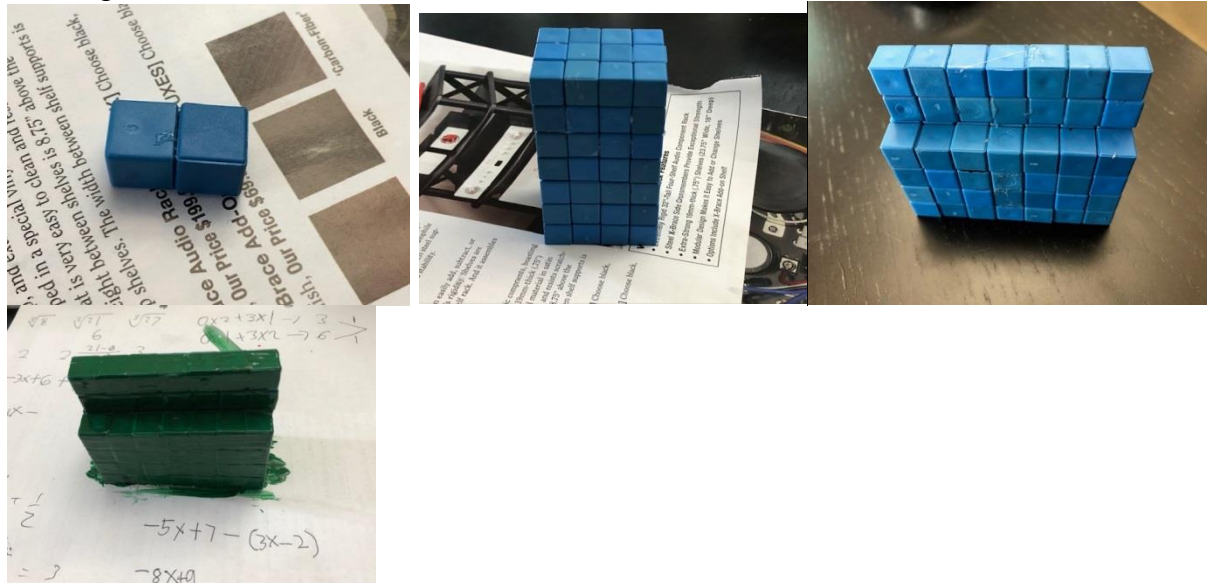
Cardboard with size of 7 x 8 cm

2 Alligator Clips

## Making the figurines

You can buy figurines as you desire. But I decided to make the figurines by myself. The figurines that I made are house, tree, and snowman.

First, I made a house out of cubic blocks. I glue them together until I got a cube of 7 x 4 x 3. I added other blocks of 7 x 2 x 1 and glued them in the middle of the cube. Then, I painted it with green color.



I cut the cardboard into a rectangle size of 7 x 8 cm. Then, I folded into two. I glued cotton balls on it to make a roof with lots of snow on top of it. I glue the roof on the cube and finally, I finished with my house.

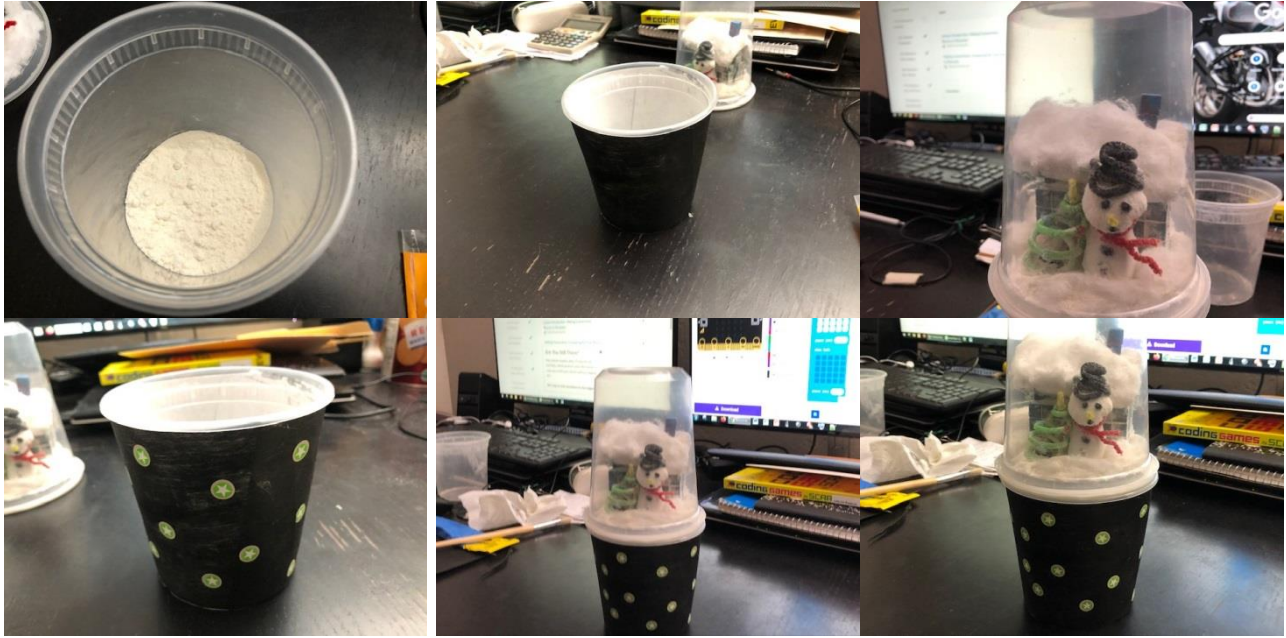
Next, I made a tree out of the pipe cleaner. I chose the green one. I circled and pulled it upward to make it looks like a tree. I decorated it. Also, I made a snowman out of cotton balls and I decorated it, too. You can decorate the snowman and tree as you desire.



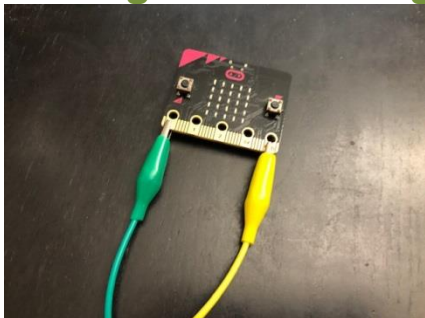
## Finishing the snow globe

After finish making figurines, I glued all to the lid of the jar. I added the cotton balls to the floor, too, to make it like snow. I poured little flour into the jar, to make an effect like snow. I took another jar and wrapped it with black paper that I painted before and stuck with star stickers on it.





## Making music and light beneath the snow globe



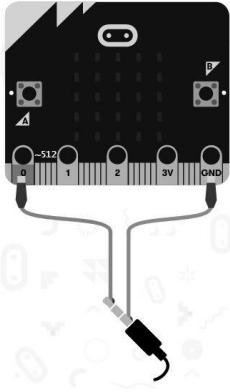
I made music (song of Jingle Bells) and light beneath the snow globe by using Microbit and a headphone. First, I made code in Microsoft Makecode. I uploaded the code into my Microbit. I connected to the headphone using two alligator clips. One is plugged into Pin 0 (P0) and the other into the ground. On the other side of alligator clips, I connected both of them into the headphone jack in the headphone. Automatically, the music is on.

I put Microbit and the battery inside the second jar (the black one) with the headphone still lying outside. I stacked the snow globe on the black jar. Voila, I got my snow globe with music and light. Enjoy!

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Lights

```
forever loop
  show leds
  pause (ms) 200
  show leds
  pause (ms) 200

forever loop
  repeat 1 times
    play tone Middle F For 1/2 * beat
  end
  play tone Middle E For 1 = beat
  play tone Middle D For 1 = beat
  play tone Middle C For 1 = beat
  play tone Middle B For 1 = beat
  repeat 1 times
    play tone Middle F For 1/2 * beat
  end
  repeat 1 times
    play tone Middle E For 1 = beat
  end
  play tone Middle D For 1 = beat
  play tone Middle C For 1 = beat
  rest(ms) 1 = beat
```