

## Materials

- Arduino Uno

## Background & Set-Up:

[https://en.wikipedia.org/wiki/Random\\_number\\_generation](https://en.wikipedia.org/wiki/Random_number_generation)

[https://en.wikipedia.org/wiki/Magic\\_8-Ball](https://en.wikipedia.org/wiki/Magic_8-Ball)

Leveraging your previous random number generator, can you create a magic 8-ball?

You will set up the Arduino to communicate with your computer using the Arduino's serial port bus that communicates over the USB connection. Use the Arduino-PC Serial Comms starter code to see how to set up the connection. To send a message to your Arduino from your PC, open the serial port monitor (Tools->Serial Port Monitor). Double-check to make sure the settings match your parameters you set up in your program.

## Goal:

We want to write a program for the Arduino that simulates a magic eight-ball. You will ask the magic 8-ball a yes-no question from your PC on the serial port monitor. You will then use your random number generator to select from a set of responses that you came up with. Based on the number, you will have your Arduino output the response to your PC on the serial port.

Input: "Will they ever get more materials for us to make class pins?"  
Output; "Outlook not so good."