



New Mexico State University
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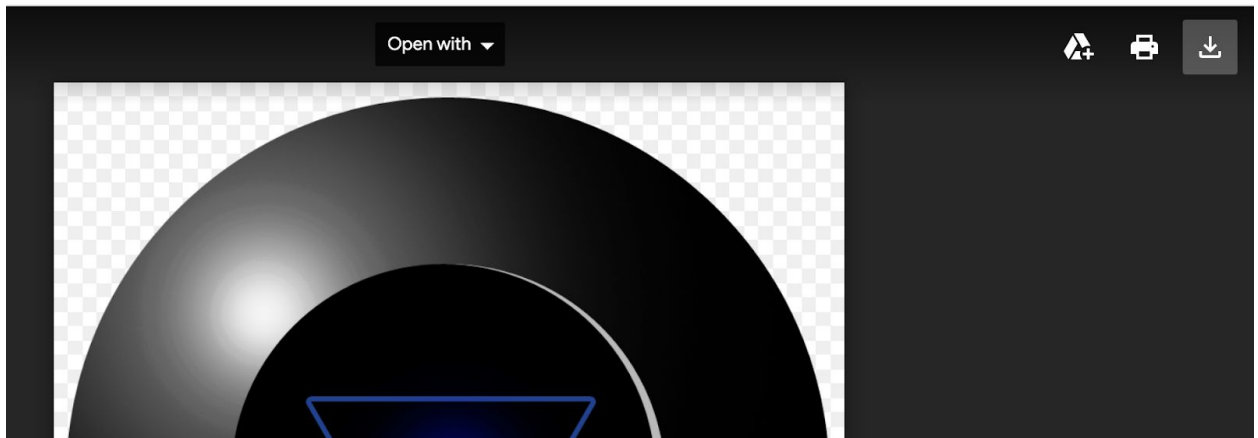
Magic 8 Ball Worksheet

Step 1: Download eight-ball image -

1. Go to this link -
https://drive.google.com/file/d/10rb7J1OzyV42mv8_mGZPdV6LBdlgzcrv/view?usp=sharing

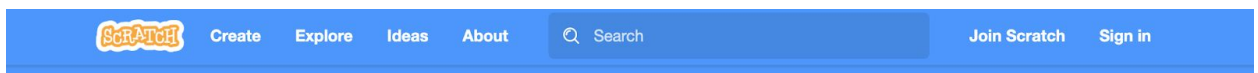


2. Click on the “”. That is the download button.



Step 2: Log into your scratch accounts -

1. Go to <https://scratch.mit.edu>.



2. Click on “Sign in” on the top header-menu.
3. Enter your username and password.

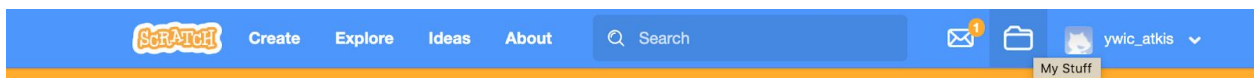


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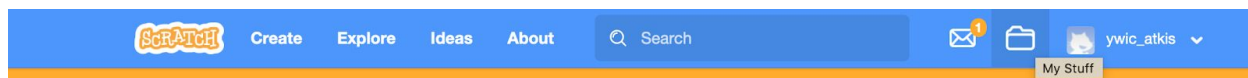


Step 3: Create a new Project or Open an existing Project -

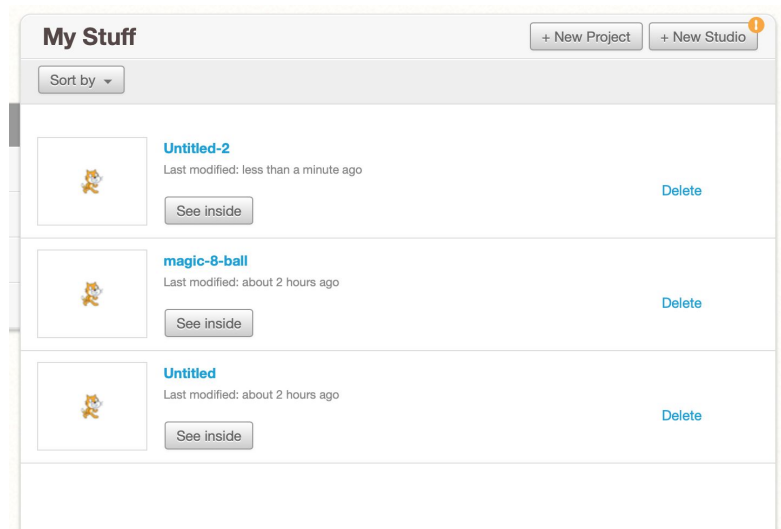
- Create a New Project
 - a. Click on “Create” on the top header-menu



- b. The scratch window should appear. You can rename your file on the top.
- Open an existing project
 - a. Click on the briefcase icon right next to your username.



- b. You should be able to see the following screen. Select the project you wish to open.



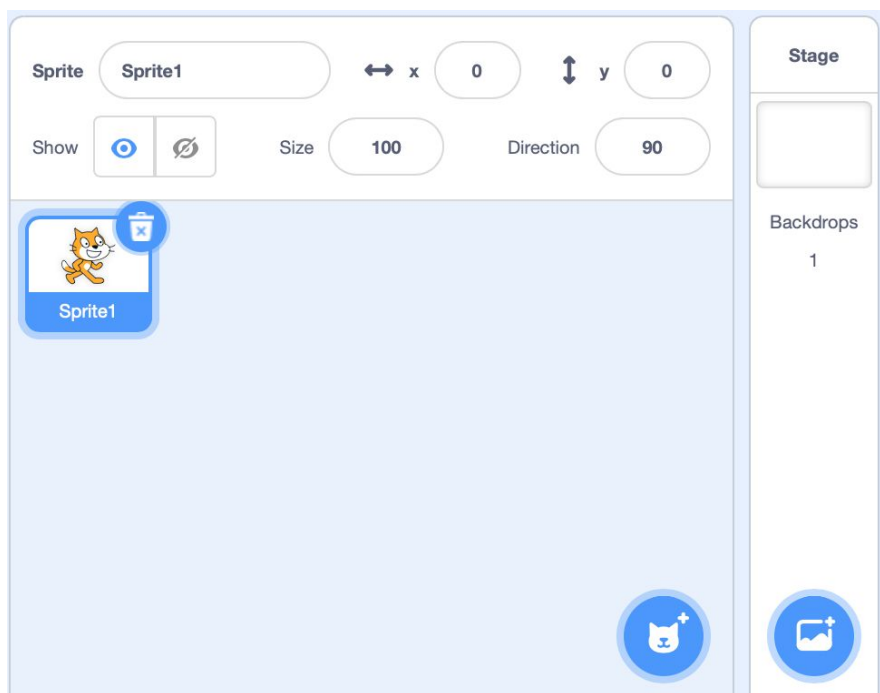


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Step 4: Upload your Sprite -

1. On the bottom-right section of your scratch screen, you should see the following -



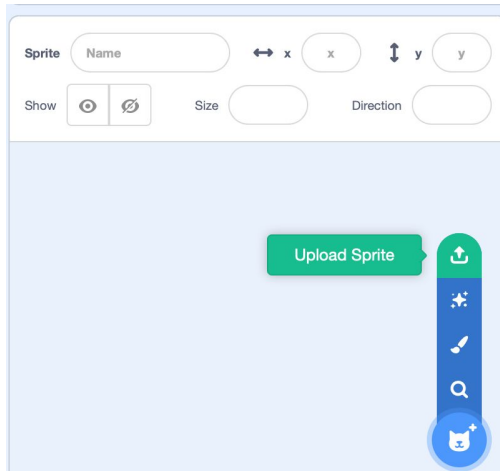
2. Click on the little trash icon on the corner of the cat sprite.



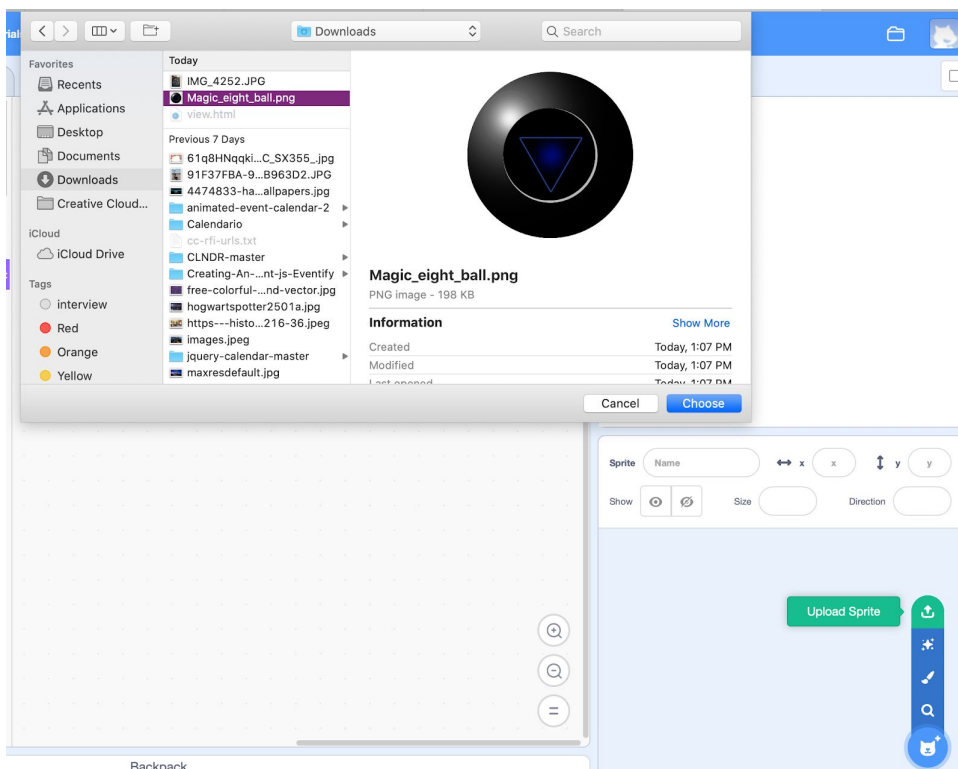
3. Hover your mouse on the “” icon on the bottom right corner of your screen.
4. You should be able to see the following -



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5. Click on the “Upload Sprite” option at the very top.
6. A dialog box will open. Go to your “Downloads” and select the “magic-eight-ball.png” that you downloaded. Click on “Choose”.

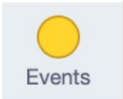





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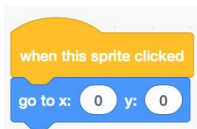



Step 5: Coding your Sprite -

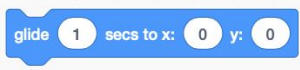
1. Click on “ Events” on the sidebar, which you can find on the left-most portion of your screen.

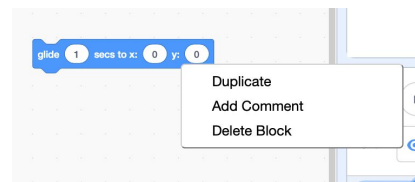
2. Select “ when this sprite clicked” and drag it to the center of your scratch screen.

3. Click on “Motion” from the sidebar and then select “ go to x: 0 y: 0”, and drag it onto the screen and attach it to the first block.

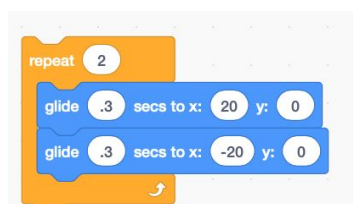


4. Click on “Control” from the sidebar and then select “ repeat 10” and drag it onto the screen. Change the “10” into a “2”.

5. Click on “Motion” from the sidebar and select “ glide 1 secs to x: 0 y: 0” and drag it onto the screen. Do not attach it to any of your previous blocks just yet. Right click on that block, and click on “Duplicate”. Attach that block to the first glide block.



6. Drag the two blocks into the orange repeat block and make the following changes in the two blocks. This is how the final repeat block looks.

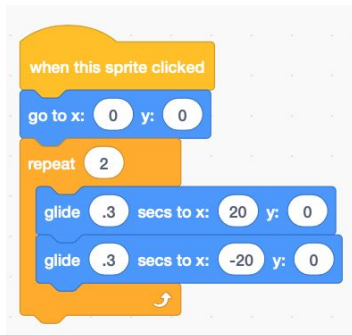




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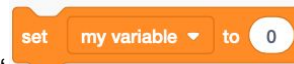
7. Drag the entire repeat block and attach it to the block which says "Go to x: 0 and y: 0". It should look something like this -



8. Click on "Motion" from the sidebar and select "glide 1 secs to x: 0 y: 0" and drag it onto the screen. Attach it after the repeat block. Change the "1" into ".3".



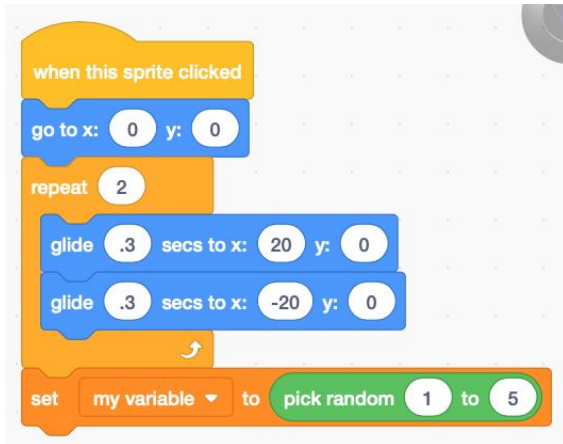
9. Click on "Variables" from the sidebar and select the "set my variable to 0" block and drag it onto the screen. Click on "Operators" from the sidebar and select the







- pick random 1 to 10". Change the "10" to "5". And then drag the green block and place it where it says "0" in "set my variable to 0" block. Something like this -



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10. Now, click on “Control” on the sidebar and select “” and drag it onto the screen. Do not attach it to anything yet. Click on “Operators” and select “” and drag it into the little hexagonal area after the “if”. Click on “Variables” on the sidebar and select “” and drag it into the first blank in the green block. Click on “Looks” on

the sidebar and select “” and drag it and place it in between the if block. You should have something like this -



11. Right click on that entire block and click on duplicate. Duplicate it 4 times, and make the following changes.



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```
if my variable = 1 then
  say As I see it, yes. for 2 seconds
if my variable = 2 then
  say Ask again later. for 2 seconds
if my variable = 3 then
  say Don't count on it. for 2 seconds
if my variable = 4 then
  say Reply hazy, try again. for 2 seconds
if my variable = 5 then
  say Without a doubt. for 2 seconds
```

12. Attach that entire if block to the rest of your code.



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This is what our final code should look like -

```
when this sprite clicked
  go to x: 0 y: 0
  repeat 2
    glide .3 secs to x: 20 y: 0
    glide .3 secs to x: -20 y: 0
  set my variable to pick random 1 to 5
  if my variable = 1 then
    say As I see it, yes. for 2 seconds
  if my variable = 2 then
    say Ask again later. for 2 seconds
  if my variable = 3 then
    say Don't count on it. for 2 seconds
  if my variable = 4 then
    say Reply hazy, try again. for 2 seconds
  if my variable = 5 then
    say Without a doubt. for 2 seconds
```



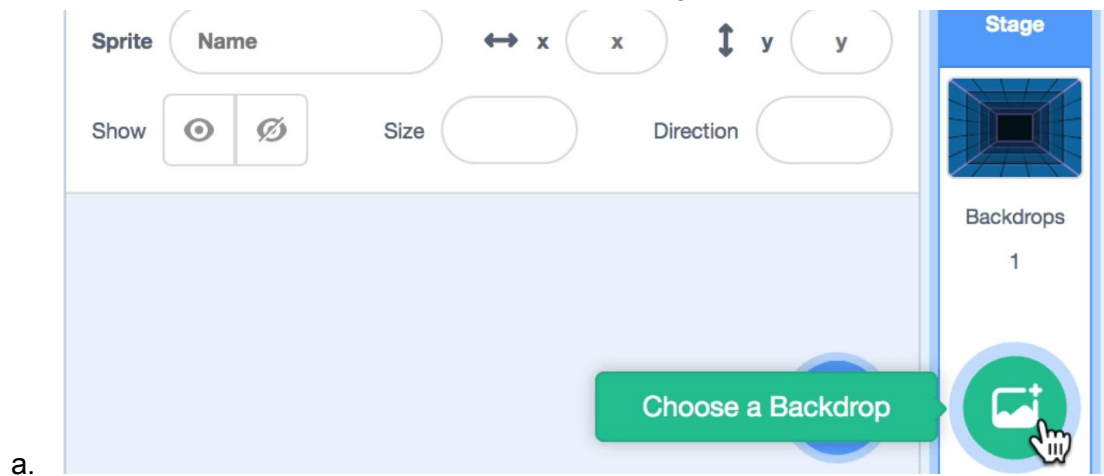
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Optional

1: You can choose a Backdrop

- Press the “Choose a Backdrop” button on the bottom right of the screen.



2: You can add more messages. To do that, you need to complete the following steps -

- In the block which says “set my variable to pick random 1 to 5”, change the “5” to the number of total messages you want. In the code, we have 5 messages, hence we pick random numbers between 1 - 5. If you have 10 messages, then you would have to change the “5” into “10”.
- You will need to add more if statements. Once again, since we only wanted 5 messages, we have 5 if statements. If you want 10 messages, you will need 10 if statements.
- Also make sure that you have an if statement for every message. So you will have to change the “#” in every “if my variable = #”.