



Code Your Own Jack-o-Lantern

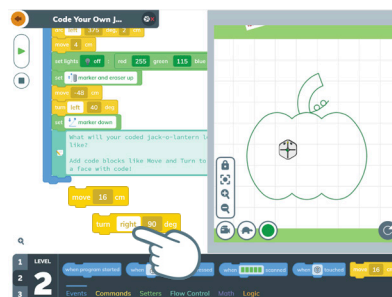
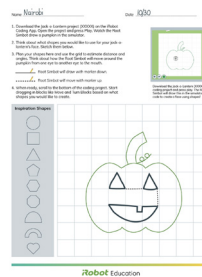
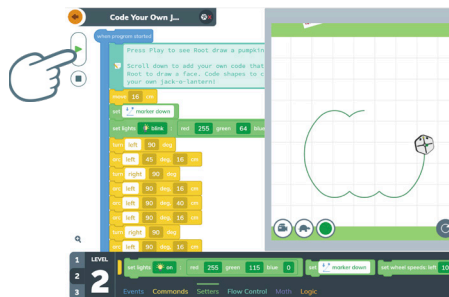
Let's carve a pumpkin with code! Can you code the Root® Coding Robot to draw some shapes and make a face? In this coding challenge, explore the drawing functionality to create shapes on a pre-drawn pumpkin in the iRobot® Coding App.

Getting Started

1. Visit [code.irobot.com](https://www.irobot.com) or the iRobot® Coding App on an **Android** or **iOS** device.
2. Tap on the cloud icon  to download the Jack-o-Lantern project: **WWMHS**

With Coders

1. Press Play and watch the Root Coding Robot draw a pumpkin in the simulator.
2. Decide what shapes you would like to add. Make a plan for your jack-o-lantern's face. Do you want triangle or square eyes? Will your jack-o-lantern be smiling or spooky?
3. Scroll to the bottom of the code.
4. Drag in blocks to start coding your jack-o-lantern.
5. Press the refresh button  then press play to see how your face is taking shape!
6. Continue until your pumpkin looks like a jack-o-lantern!



Subject(s):

Coding
Robotics
Art

Experience Level:

Grades 3-9

Time:

30-45 minutes

Group Size:

1-3

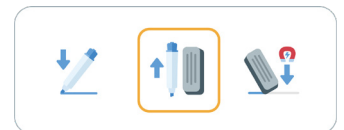
Marker Up Block:

Need help finding the Marker Up Block?

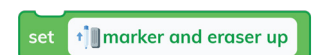
Drag out a Marker Block



Tap the Marker Block to open its Editor. Select the Marker/Eraser Up icon.



You now have a Marker Up Block!



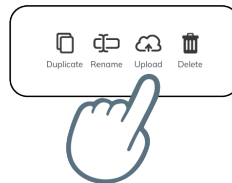
Share Your Projects

Add your jack-o-lantern to the iRobot Education Pumpkin Patch and share with friends!

1. Click the project menu icon on your coding project

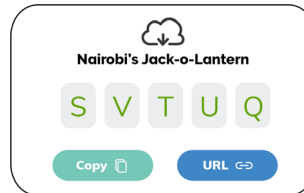


2. Rename your project.



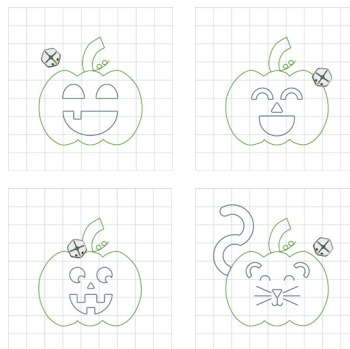
3. Tap the Upload Icon

4. Copy your Project ID or URL



5. Share your Project ID or URL on social media and tag us @RobotEducation! Post a picture as well!

6. Have fun!



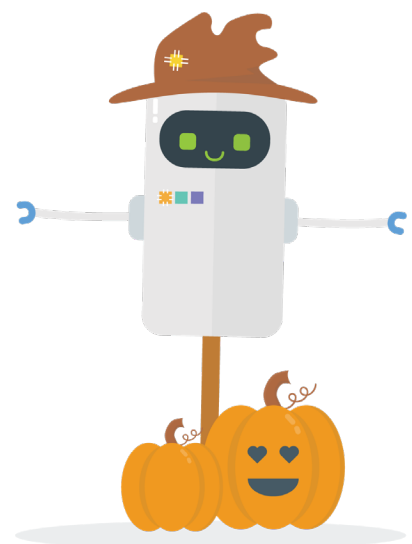
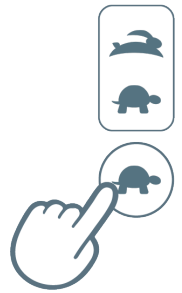
Going Further

Ready to take your coding skills to the next level? Take on The Great Pumpkin Challenge and code your own pumpkin! Press the + sign to start a new project and turn your simulator into a pumpkin patch scene created by you!

Simulator Tips

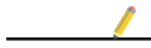
When you click the reset button, everything in the simulator is restored to the default scene. As you debug your code, you will need to rerun your program and redraw the pumpkin.


Click on the turtle icon to open the simulator speed menu. Use the rabbit toggle to speed up your code as you test other solutions to program the ultimate jack-o-lantern!



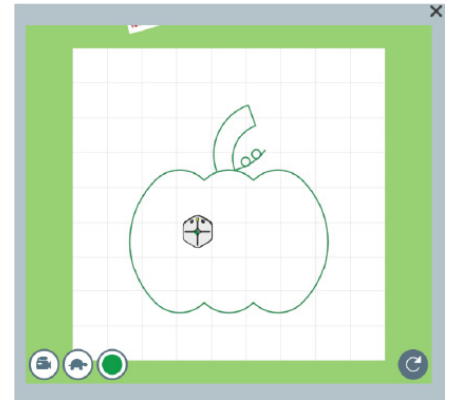
Code Your Own Jack-o-Lantern!

1. Download the Jack-o-Lantern project (WWMHS) on the iRobot Coding App. Open the project and press Play. Watch the Root Simbot draw a pumpkin in the simulator.
2. Think about what shapes you would like to use for your jack-o-lantern's face. Sketch them below.
3. Plan your shapes here and use the grid to estimate distance and angles. Think about how the Root Simbot will move around the pumpkin from one eye to another eye to the mouth.

 Root Simbot will draw with marker down.

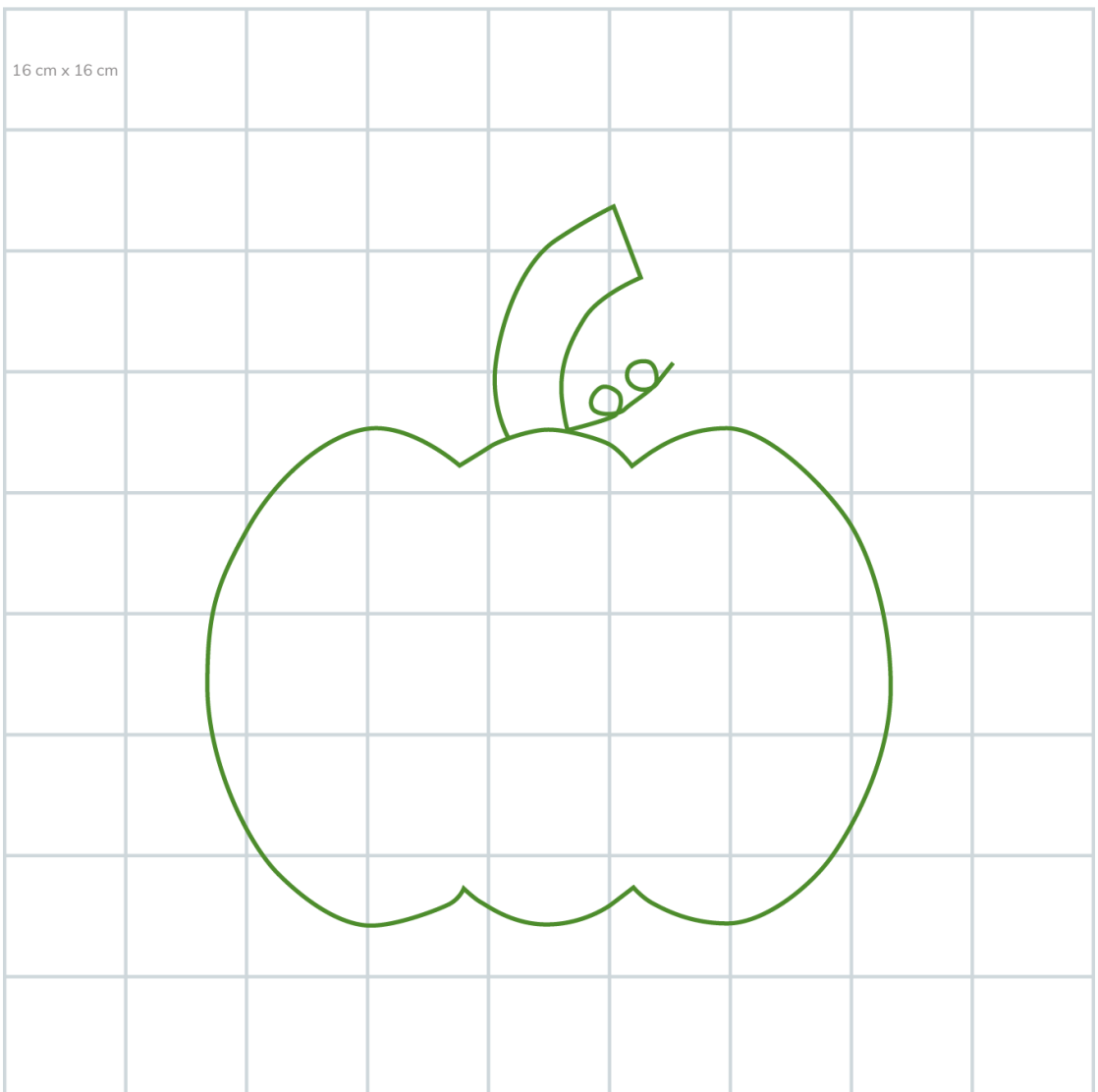
 Root Simbot will move with marker up.

4. When ready, scroll to the bottom of the coding project. Start dragging in blocks like Move and Turn Blocks based on what shapes you would like to create.



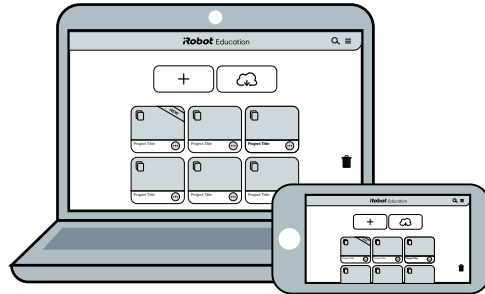
Download the Jack-o-Lantern (WWMHS) coding project and press play. The Root Simbot will draw this pumpkin in the simulator. Add code to create a face using shapes!

Inspiration Shapes



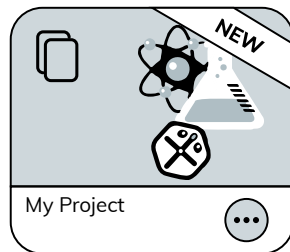
Uploading Projects

Step 1:



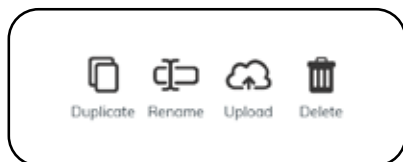
Visit **code.irobot.com**
or the **iRobot™ Coding App**.

Step 2:



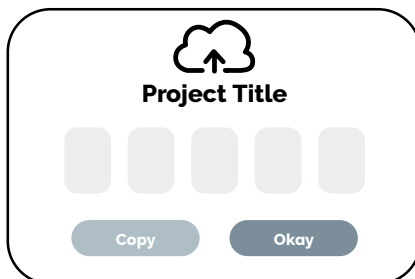
Select the project. Click on the
three dots.

Step 3:



Click on the **Upload Icon**.

Step 4:



Copy the project code to
share with your friends!