

45 Fun things to do with **ARTIE** 3000™

Coding, creating, drawing, and playing with Artie 3000 is a great way to incorporate STEM learning (science, technology, math, and engineering) into your kiddo's daily play. And there are so many ways to play with Artie! We've listed 45 of our favorites below:

- 1. Create an Artie Coding Gallery**
Use Artie's programs and your own code to create cool masterpieces – then tape them up around the room and take your family and friends on a tour.
- 2. Write Your Own Secret "Code"**
Create a secret code using Artie's alphabet and shape programs, or combinations of both. Then use your code to write notes! "Hide" them in Artie's head and use the remote-control feature to secretly pass them to people in your house.
- 3. Write Your Initials**
Use Artie's remote control and write your own initials!
- 4. Create Cool Patterns**
Code Artie to draw overlapping geometric patterns that make a cool, unique pattern and then color it in.
- 5. Learn Multiple Coding Languages – Snap**
Teach yourself to use Artie's Snap app! Following the directions, start by coding a simple square.
- 6. Learn Multiple Coding Languages – Blockly**
Teach yourself to use Artie's Blockly app! Following the directions, start by coding a simple square. How is Blockly different from Snap?
- 7. Learn Multiple Coding Languages - JavaScript**
Download the JavaScript letters from CodeWithArtie.com. Write your name and make a sign for your door!
- 8. Learn Multiple Coding Languages – Python**
Download the Python alphabet /word writer. See how many letters you can code Artie to print.
- 9. Take Artie on an Adventure!**
Code Artie to navigate around your house! Watch out for uneven surfaces and the dreaded carpet! (Be sure to remove the pen before sending him on his voyage!)
- 10. Tic Tac Toe Tournament**
Have Artie draw a Tic Tac Toe game board and then challenge your family and friends to a game!
- 11. Draw a Self Portrait**
Code Artie to draw a picture – of you! Hint: 1 medium circle on top of 1 large circle and 2 small circles inside the top circle for eyes
- 12. Start an Artie Sign Shop**
Create cool signs with sayings like "Be Happy" and put them up on the refrigerator or around the house. Tell your family and friends you'll make a sign for them, too, with a sign that says, "Signs Made While You Wait!"
- 13. Do An Artie Hat Trick**
Make a fun hat for Artie to wear. Start by coding a long rectangle that is big enough to go around Artie's head (this will be the band of the hat), then code another shape to glue or staple to the center of the band. Simulate your code to test how it will look, then make adjustments. When you're ready, have Artie draw it, cut it out, and wear it!
- 14. Start a Chain Reaction**
Line up lightweight household items, like books or playing cards, in rows like dominos. Make sure Artie's pen is up and then code or use the remote control to drive Artie into the first item and set off the "domino effect."
- 15. Patrol Your Space**
Find a room with a smooth flat surface, like wood or tile. Code Artie to move back and forth to guard entry to the room!
- 16. Set Up a Sneaky Trojan Horse**
Set up a capture the flag game with two teams of small action figures. Place obstacles all around. Then hide one figure inside Artie's head and see if you can code him to sneak his teammate into the opposing team's camp!
- 17. Test Artie's Strength**
Use blocks or other toys to test how many Artie can push as you code or use the remote control to move him forward.



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ARTIE

18. Create a Dash-to-Dash image

We all know how to use Connect the Dots, how about connect the Dashes? Try coding something using a small dash in the beginning and then progressively larger dashes as you go. Then connect them to form a picture! Now you can make designs for your family to connect!

19. Go to Infiniti and Beyond

Code Artie to draw the number "8." Then rotate the artwork 90 degrees—an 8 on its side is the symbol for infinity.

20. Make Artie Into a Smartie

Code Artie to draw a set of glasses. Then cut them out, color, and put them on Artie. (Artie doesn't have ears so you'll have to tape them on!)

21. Robot Ring Toss

Find some thick paper, such as paper plates or cereal boxes, cut them into large circles, then cut out their centers, making sure the center hole is big enough to fit over Artie's Head. Then code Artie to zig zag and spin while you try to toss the rings over Artie. Make the game harder or easier using differently coded movements.

22. Code a Cityscape

Code Artie to make the outlines of a house, castle, or building, then decorate them and cut them out. Tape the buildings together to create an entire city - maybe even your own!

23. Fly An Artie Airplane

Find pictures of airplanes you like, then code Artie to draw your dream plane, piece by piece. First make the body of the airplane (fuselage), then code differently sized wings. You can create the parts in different files so that you can mix and match your designs. Decorate the parts and tape them together to create your own custom dream plane!

24. Go Fly a Kite

A simple kite can be as easy as making a diamond, and a diamond is as easy to code as drawing two triangles that share the same base! Code Artie to draw two triangles, then decorate, cut them out, tape them together and attach string or ribbon to create a tail. Make sure to add tape from corner to corner in an "X" and to also reinforce the paper with tape where you attach the string. (See diagram). Then go outside and give it a try!

25. Make Your Own Emojis

Code a page of circles, then color in the faces to design your own emojis!

26. Puppet Show

Code simple people or animal shapes for Artie to draw. Then decorate them, cut them out, and glue sticks on their backs to create a puppets perfect for a family show!

27. Robot Racing

Use Artie to code a racetrack for toy cars or run Artie through your track, timing him as you code him around the curves!

28. Throw an Artie Dance Party

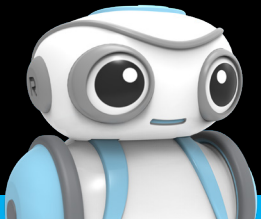
Code a cool dance sequence for Artie, then play your favorite music and watch him go! If you have a camera, you can film a music video of Artie with your cool camera work.

29. Make an Artie Tornado

Code Artie to make super small spins, first to the right and then to the left. What kind of cool path does he create?

30. Go Abstract

Code random directions without testing them on the simulator screen. Making sure you're on a safe surface, and ready to catch Artie if he moves off the paper or goes near the edge of a table, run your code and find out what your masterpiece looks like. When you are done compare your code to the drawing, can you see which steps match which lines?



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31. Backwards Day

Code Artie to draw backwards. How do you have to adjust your code to get him to do what you want?

32. Get Zen with Artie

Draw a mandala and color in each segment with a different pattern.

33. A-Maze Your Family and Friends

Using books and blocks, build a maze – complete with tunnels! – and see if you can navigate Artie with the remote-control feature. For an extra challenge, see if you can code him through the maze.

34. Make a GOAL!

Play soccer with Artie! Crumple one of your discarded practice pages into a paper soccer ball. Code Artie to move back and forth to push the ball down the field (make sure to use a smooth flat surface).

35. Pack a Picnic

We all need a break! Have Artie draw a picnic blanket that's just his size! What kind of pattern should be on the blanket? Have Artie draw your creation, then grab a snack and enjoy a picnic together.

36. Hang On

Use Artie's preloaded code to play a game of Hangman. Invite some friends and see how much fun you can have. Add extra lines if you want to make longer words.

37. Make a Maze (or Three)

Code three different mazes and have Artie draw them. Then time your family to see who can finish them the fastest!

38. Have Fun with Fortunes

Download the Python fortune teller. Ask Artie questions and he'll predict the future! You can also give him a true/false quiz.

39. Shrink and Grow

Draw a circle using Artie's preprogrammed code. Then change the measurements to make the circle smaller. Next change them to make it bigger. Now you can adjust the size of any shape you create!

40. Get Square

Draw a square. Then try repeating and rotating the square to make a square mandala. Hint: look at the code for the Circle Mandala and switch out the circle for the square.

41. Be a Shape Shifter

Code an octagon. How could you change it to create a pentagon? How about a hexagon? Hint: how many sides does an octagon have...how many sides does a pentagon have... start there and see how many lines you need for each "side".

42. Become an RC Master

Sure, you've used the Artie remote control, but to become an RC Master, you must be able to use the remote control to write out your full name! Beware, it's harder than it seems.

43. Go Zero to 60

Using the remote control, drive Artie straight for 1 minute and measure how far he goes. As an example, if Artie went 16 feet, we'd know he goes 16 feet per minute. Let's try to find miles per hour! How? First, let's convert minutes to hours. There are 60 minutes in an hour, so, we need to multiply 16 feet (how far Artie went in 1 minute) times 60 minutes, which is 960 feet in 1 hour. Ok, but we still need miles per hour, not feet per hour. So now let's convert feet to miles! There are 5280 feet in a mile, so if we divide Artie's 960 feet by 5280 feet then we get Artie's speed...drum roll please... Artie goes 184 MPH. How fast is your Artie?

44. Code the Stars

Code Artie to draw constellations! Can you code Artie to draw the Big Dipper? What about the Little Dipper?

45. Artie Time

Code Artie to draw all the numbers 0-9 at 2 inches tall. Also Code Artie to make the colon to separate the numbers. How many numbers would Artie have to draw to make a Digital Clock? Practice making your digital clock with numbers drawn by Artie