



# 50 Free Ways to code with both



#### 1. There and Back Again

- Use the tiles included in the set, or create your own with construction paper.
- Start on the BLUE tile. Code Botley to get to the ORANGE tile, and then return to the BLUE tile. Try to do this in the shortest code sequence (4 steps!).

#### 2. There and Back Again Part 2

- Use the tiles included in the set, or create your own with construction paper.
- Start on the BLUE tile. Code Botley to get to the ORANGE tile, and then return to the BLUE tile. Try to do this in the shortest code sequence (6 steps!).

#### 3. Round Trip

- Use the tiles included in the set, or create your own with construction paper.
- Start on the BLUE tile. Code Botley to get to the ORANGE tile, and then return to the BLUE tile. Try to do this in the shortest code sequence (16 steps!).

# 4. Back to Square One

- Use the tiles included in the set, or create your own with construction paper.
- Start on the BLUE tile. Code Botley to get to the GREEN tile, and then return to the BLUE tile. Try to do this in the shortest code sequence (12 steps!).

#### 5. Goallll!

- Place the circle goal on the ground about 10 feet in front of Botley.
- Now, snap on Botley's face mask and arms, and put the ball in front of Botley.
- Code Botley to drop off the ball into the goal.

How many forward steps do you think it will take to get Botley to the goal? (Hint – Botley moves forward 8" with each forward step).

#### 6. Another Goalllll!

- Now, score two goals! Place the circle goal on the ground about 10 feet in front of Botley.
- Snap on Botley's face mask and arms, and put the blue ball in front of Botley. Code Botley to drop off the ball into the goal.
- Now, turn around, retrieve the orange ball, and bring it to the goal. Try to do this in the fewest steps! (Hint – Botley moves forward 8" with each forward step).

#### 7. Maze Master

 Use construction blocks to build a maze. (Be sure Botley can fit through the maze!) Now, build your code to get Botley through the maze. Take turns to see who can get through the maze in the fewest number of steps!

#### 8. Best Buddies

 Brighten someone's day! Code Botley to bring a flower to a friend. Use Botley's mask and arms to carry the flower.

#### 9. Build A Track!

 Using black electrical tape, make a black-line track for Botley. Be sure it's on a hard, smooth surface that won't be damaged by the tape.
 See how many laps Botley can make!

# 10. Take Botley For A Walk

 Just like you, Botley needs exercise to stay healthy. Build the biggest code you can (up to 80 steps!) and transmit it to Botley. Now, follow along behind and repeat Botley's moves.





# 50 Free Ways to code with **DOT**



#### 11. Alpha-Botley

 Think of a letter, like the first letter of your name. Now, plan out a code for Botley to move in the shape of that letter. Try it for other letters of the alphabet!

#### 12. Number-Bot

 Think of a number from 0−9. Now, plan out a code for Botley to to move in the shape of that number. How many numbers can you "code"?

#### 13. Botley Bowling!

- Snap on Botley's mask and arms. On a smooth surface, arrange 10 blocks or dominos like bowling pins, about 3 feet away from Botley.
- Code Botley to knock down all the "pins." For added math fun, take turns and keep score. Add up your knocked-down "pins" on each turn.

#### 14. Break It Down

- Botley is a super-strong robot! Using toy construction blocks, can you build a tower strong enough to withstand Botley?
- Build the wall or tower, and then code Botley to try to knock it down.

# 15. Egg On A Spoon

- On a large sheet of white paper, make a squiggly track with a thick black marker.
- Now, snap on Botley's face mask and arms, and put Botley in LINE mode. Place the ball on Botley's hand. See if Botley can keep the "egg" from dropping while it zig-zags along the line.

#### 16. Botley 500

 On a large sheet of paper, construct a black-line Botley racetrack. See how long Botley can push the ball along the track.

#### 17. Botley Escape Room

• Re-create a room in your house using construction blocks and other objects. Now, place Botley in the room and plan your code so Botley can escape! For a challenge, set a timer and see who can escape the guickest!

#### **18. YELTOB!**

 Using blocks or any other materials, build a maze for Botley. Now, turn Botley around and code Botley to go through the maze BACKWARDS!

#### 19. Follow The Leader

- Have one player code a sequence for Botley (don't show it to the other player!). Now, press TRANSMIT and watch Botley execute the code.
- Press CLEAR. Now, see if the other player can re-create the same code!

#### 20. Robot In Disguise!

 Use construction paper or other materials to make a "costume" for Botley! Be sure not to cover up Botley's top or front sensors!

### 21. Balancing Ball Challenge

 Snap on Botley's mask and arms, and place one of the balls on its hands. Now, build a 40-step code for Botley. For a real challenge, add in a lot of left and right turns.





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Grab a spoon and place the other ball on it.
 Have someone press TRANSMIT. While Botley carries the ball on its hands, you follow Botley and repeat its moves. Try not to drop the ball off the spoon! Who will carry it the longest?

#### 22. Botley Curling

 Cut out paper "targets" and place them on the floor about 12 feet in front of Botley.
 Now, take turns coding Botley to get as close to the inner circle as possible.

**Assign points:** 

Blue Ring = 10 points White Ring = 20 Points Red Ring = 50 points

Add up all points after 3 tries!

# 23. Get Up & Dance

- Program a long code (60+ steps) sequence for Botley—the longer the sequence, the better! Try combinations of forward & back, and left & right turns.
- Now, play your favorite song, and dance along with Botley!

#### 24. Traffic Jam

 Make a maze of toy cars or blocks so that it looks like a traffic jam. Now, build a code to get Botley through the traffic without hitting any cars!

# 25. Botley Squared

- Can you code Botley to make the smallest square possible?
- Now, program Botley to make a square twice that size. How about 4x that size?
- Make the biggest square you can. Try using the loop feature to create your program.

#### 26. Making Art With Botley

- Place a thin felt tip marker in each of Botley's hands (if they don't fit, you can tape them on).
   Remove the caps of the markers.
- Now, place Botley on a large sheet of paper.
  Code Botley to create one-of-a-kind masterpieces!

#### 27. Cardboard Magic

 Use cardboard boxes to build a city landscape for Botley to travel around. Include skyscrapers and tunnels!

#### 28. Chain Reaction

 Carefully set up dominoes or other thin blocks or books, standing them up in a line or pattern. Code Botley to knock them down by hitting the "head" domino. Try to make a "chain reaction" and knock them all down!

#### 29. Food Delivery

 Balance a small plate or tray on Botley's hands, load it up with play food (make it with popular modeling dough or clay), and code Botley to deliver your food, hands-free!

# **30. Surprise Note**

 Code Botley to bring a note of encouragement or just say "Hi"! Write out a note and code Botley to hand-deliver it to someone to brighten their day!

#### 31. Room Guard

 Code Botley to act as a sentry to guard your room.





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#### 32. Clean Up Time

 Toys and blocks are everywhere—have Botley clean them up! Use Botley's mask and arms, or the new Crashin' Construction set, and code Botley to move them out of the way.

#### 33. Get Dizzy!

- Use left (or right) turn commands to make Botley spin around like a top.
- Now, while Botley spins, you spin too! Can you spin as much as Botley without getting dizzy?!

#### 34. Word Jumble

- Write the letters of your name on separate pieces of paper. Scramble the letters up and line them up in a row.
- Now, program Botley to go to each letter in order to spell your name. Scramble the letters again and enter a new program.

# 35. Tug O' War

- This one requires two people. Sit about 10 feet apart on a smooth surface and place Botley in the middle.
- One person will do the coding. Flip a coin. If it lands on "heads," code Botley to go forward 2 steps toward the other person. If it lands on "tails," code Botley to go backwards toward you. Be sure to press CLEAR in between coin flips. The player who Botley gets closest to is the winner!

# **36. Be Like Botley**

 Pretend you are a robot like Botley. The only way you can move is by following commands and moving in sequences of steps.

- Print out or create on paper arrow commands like FORWARD, BACK, TURN LEFT, and TURN RIGHT.
- Now, move around your house just like Botley would, but move step by step, calling out your command as you do!

#### **37. Botley Rodeo**

 Get a small action figure or doll and place it on top of Botley. Now, code Botley to move around the room. See how far you can go before your "rodeo rider" falls off!

#### 38. I Spy (3 or more players)

- One player selects an object in the room.
  Next, that player programs Botley to go to the object, presses TRANSMIT, and says, "Botley spies with its two eyes something....(give a hint)."
- Now, the other players shout out which object they think Botley spies. The first to guess correctly wins! Now it's that player's turn to program Botley!

# **39. Botley Hopscotch (Advanced)**

- Use pieces of paper to set up a hopscotch board (or draw it on butcher block paper).
- Code Botley to go from 1 to 5, making sure Botley "steps" on each numbered square in the correct order.

#### 40. Add 'Em Up

- On a large piece of paper, make a 6 x 2 grid, and number the spaces 1–12. Try this with subtraction too!
- Now, roll two dice cubes. Whatever the numbers add up to, code Botley to get to that number.





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#### 41. Space Explorer

- On a large sheet of paper or butcher paper, re-create any map of the solar system, showing all planets in a row.
- Call out a planet name, and then code Botley to get as close to that planet as possible. Try to name a fact about that planet.

#### 42. Spin The Botley

 Play this with a small group. Place Botley on the ground and press RIGHT TURN several times (at least 10x).  Press TRANSMIT. When Botley stops, the person Botley is pointing at needs to stand up and tell a joke, sing a song, or do a dance.

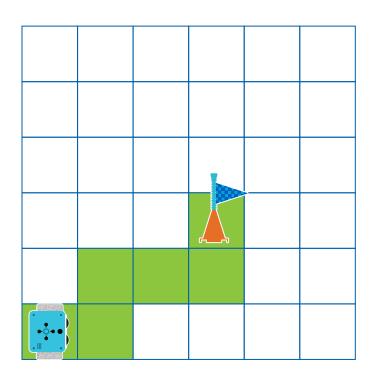
#### 43. Botley Distancing

- Set up a number of objects around the floor (blocks, toy cars, etc.). Place Botley in the middle of them.
- Now, Code Botley to move, but use OBJECT DETECTION to avoid touching or getting close to any of the objects. Program a really long code so Botley avoids all of them!

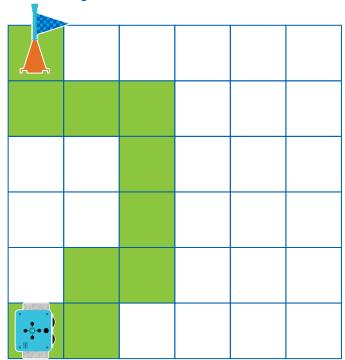
#### **Botley Mazes**

Use ARROW commands to "code" Botley through the maze to the goal!

### 44. Botley Maze 1



# 45. Botley Maze 2



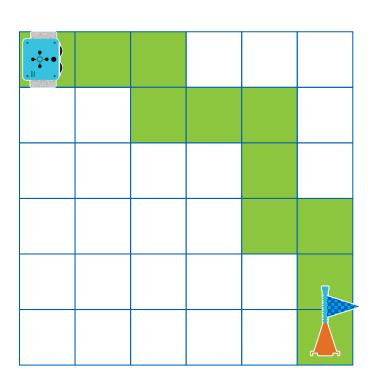




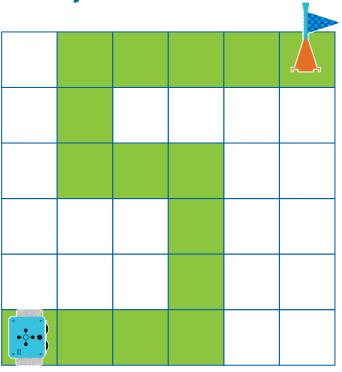
# Free Ways to code with botley the coding robot



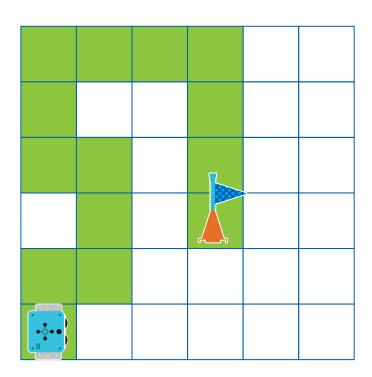
### 46. Botley Maze 3



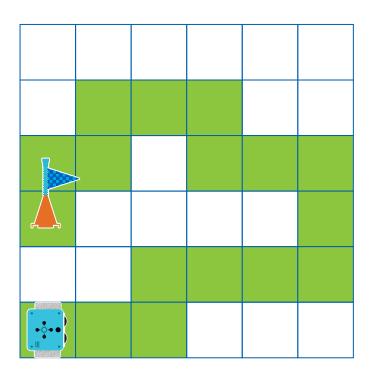
# 47. Botley Maze 4



# 48. Botley Maze 5



49. Botley Maze 6







# Free Ways to code with botley the coding robot



### 50. Botley Maze 7

