FinchBlox Challenge Cards

Answer Cards
outlined in Orange

BIRDBRAIN
TECHNOLOGIES

Notes for Teachers

- These challenges are open-ended! We will share one possible answer in the answer key, but each challenge has more than one possible solution. Celebrate different solutions with your students!
- All challenges are created to be used with FinchBlox level 2 and up, unless specified (challenges created to be used with level 3 are marked directly on the card).
- These cards are designed to spark discussion and class reflection. They work excellently as centers, to be followed by a full class discussion.

SQUARE CHALLENGE

Program your Finch Robot to move in a square. How many commands did it take?

BIRDBRAIN TECHNOLOGIES

HOKEY POKEY CHALLENGE

Program your Finch Robot to dance the Finch Hokey Pokey! Then share your favorite verse with a friend.

You put your beak in
You put your beak out
You put your beak in
And you shake it all about
You do the Hokey Pokey
And you turn yourself around
That's what it's all about!

Repeat with tail, left/right side, wheel, micro:bit, distance sensor, charge port, etc.

BIRDBRAIN TECHNOLOGIES

RAINBOW CHALLENGE

Program your Finch to light up all the colors of the rainbow. Can you make it move during the light show?
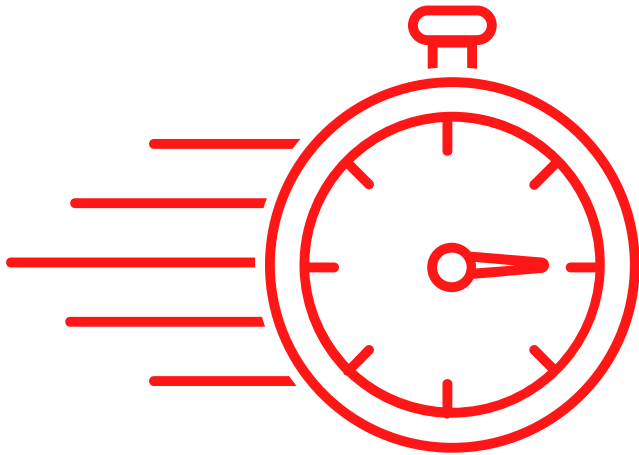
MUSIC CHALLENGE

Program your Finch Robot to sing Mary Had a Little Lamb. What other songs can you code?

SPEED CHALLENGE

Explore speed with the Finch Robot. How long does it take Finch to travel 90 cm at 100% speed? How long does it take Finch to travel 90 cm at 20% speed? Can you guess how long it would take at 50% speed?

BIRDBRAIN LLC TECHNOLOGIES ®

WHEEL CHALLENGE

Program your Finch Robot to move forward 50 centimeters. How many times do the wheels have to turn to move that far? How can you tell? How far will the Finch move if the wheels turn 10 times?

BIRDBRAIN LLC TECHNOLOGIES ®
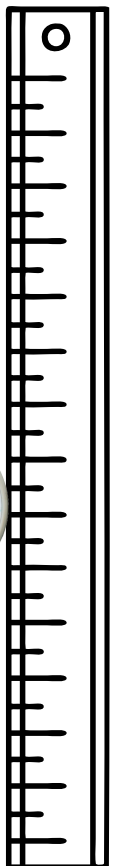
MYSTERY BLOCK CHALLENGE

LEVEL 3 ONLY

Explore this block on FinchBlox level 3. What does it do? If you could design your own block for FinchBlox, what would it do?
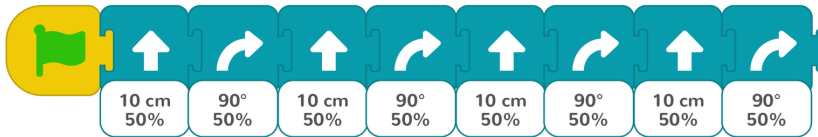
BIRDBRAIN
TECHNOLOGIES

TRIPLE THREAT CHALLENGE

LEVEL 3 ONLY

Make your Finch sing, move, and light up at the same time.

BIRDBRAIN
TECHNOLOGIES

SQUARE CHALLENGE

Here are two examples of programs that could complete this challenge.
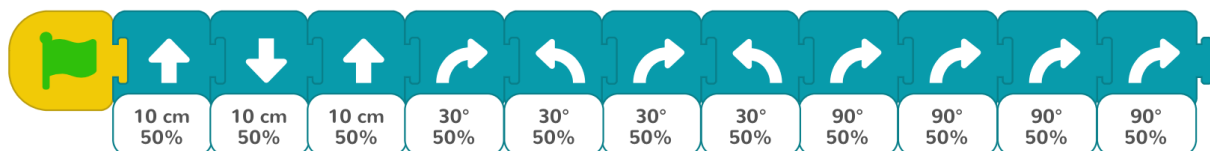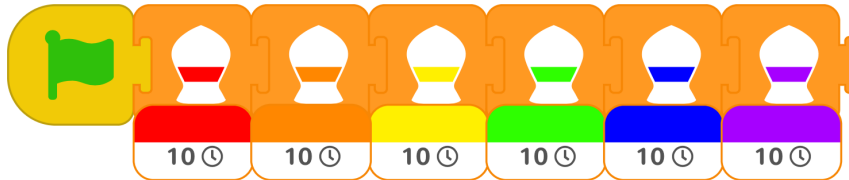
BIRDBRAIN TECHNOLOGIES

HOKEY POKEY CHALLENGE

This is an open-ended question, and answers will vary. Here is one example of a program that could complete this challenge.

BIRDBRAIN TECHNOLOGIES

RAINBOW CHALLENGE

This is an open-ended question, and answers will vary. Here is one example of a program that could complete this challenge.

MUSIC CHALLENGE

This is an open-ended question, and answers will vary. Here is one example of a program that could complete this challenge.

SPEED CHALLENGE

Students should click on the forward motion block in order to pull up the menu to adjust speed and distance. When they have programmed their chosen speed and distance, they can use a timer or clock to answer the challenge questions.

- 100% speed: approximately 3 seconds
- 20% speed: approximately 11.5 seconds
- 50% speed: approximately 7 seconds

BIRDBRAIN
TECHNOLOGIES

WHEEL CHALLENGE

Students should align the orange line on the wheel so that it touches the floor. Then they should count how many times the orange line returns to this location. For 10 centimeters, it would be 3 full rotations plus a little more.
(It is ok for students to say 3!)

BIRDBRAIN
TECHNOLOGIES

MYSTERY BLOCK CHALLENGE

Each students' code will look different, but in order to complete this challenge, they should understand that this block engages the Finch's distance sensor. This block makes the Finch move forward until it senses an obstacle.

BIRDBRAIN
TECHNOLOGIES

TRIPLE THREAT CHALLENGE

Each students' code will look different, but in order to complete this challenge, they should have three green flag event blocks on the screen. Here is one example.

BIRDBRAIN
TECHNOLOGIES