

# Help Lynx Collect Pine Cones!

Bradley Daniel

## About

This Game(<https://www.w3schools.com/codegame/index.html>) is about making the computer lynx move to the correct location indicated by the acorn on the 3d map. It helps students learn about simple algorithms and slowly introduces the students to loops.

## Goal

To introduce the player to a fun and engaging way to learn algorithms and simple coding concepts such as loops. Through the use of a drag-and-drop command system. This game also makes the player think about the most efficient way of completing the level since there is a limited amount of command slots.

## Vocab

**Looping** A set of instructions that are run  $n$  times. Where  $n$  is a number specified by the programmer.

## Commands



This is the **move** command. It moves the lynx by one space.



This is the **loop** command. It will repeat the commands inside a specified time by increasing the counter on the end.



This is the **rotate clockwise** command. It will rotate the lynx clock wise once. To point in a new

direction.



This is the **rotate counterclockwise** command. It will rotate the lynx in the opposite direction from the **rotate clockwise** command, to point in a new direction.



This is the **Action** command. It will interact with the chest on the map which the lynx must be facing in order for it to work.

## Tips

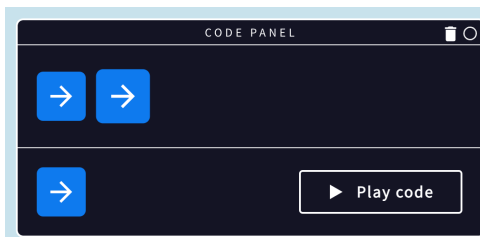
- When getting to later maps you will need to think about how you can reduce your commands since you only get a certain amount of command spots.

## Walkthrough

Here is the walk-through of the levels.

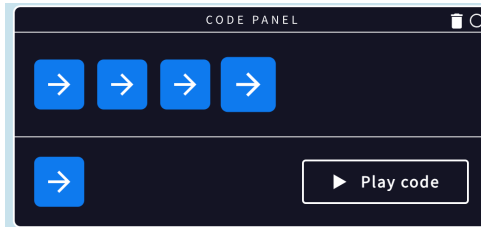
## Turning

### Level 1

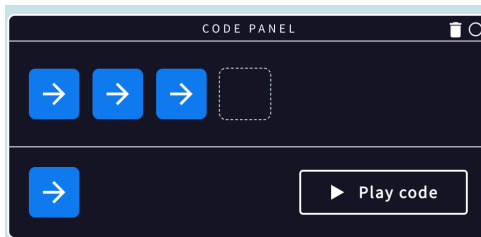


Drag the action **move** to get the acorn.

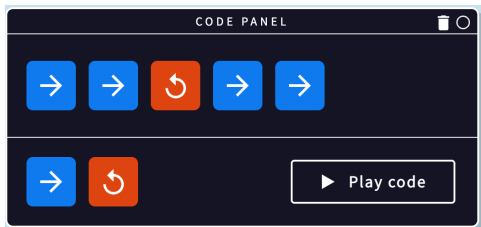
## Level 2



## Level 3

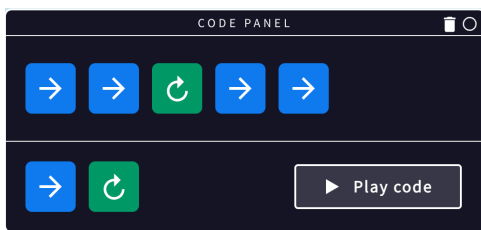


## Level 4

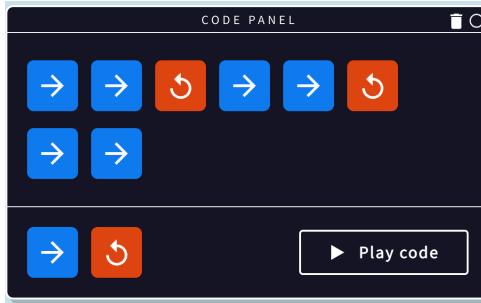


Pretty simplistic level just showing how the *clockwise* turning mechanism works.

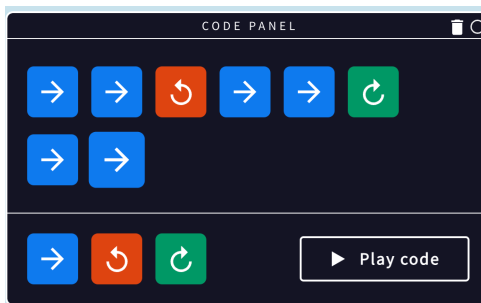
## Level 5



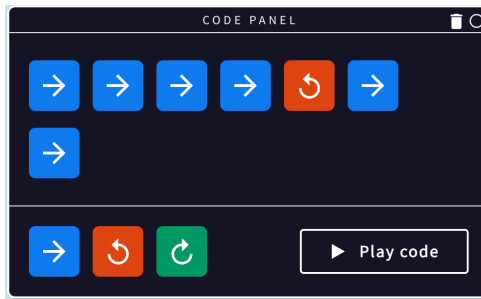
## Level 6



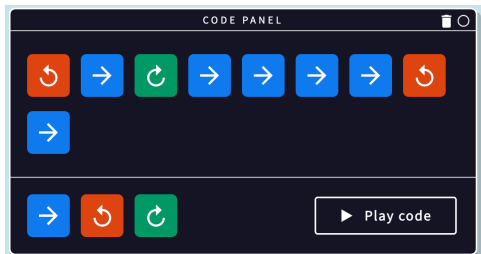
## Level 7



## Level 8

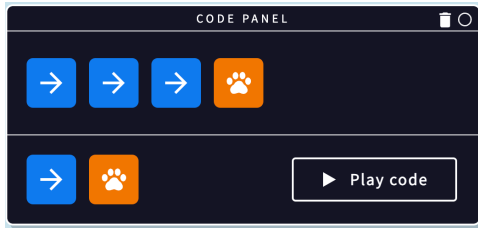


## Level 9

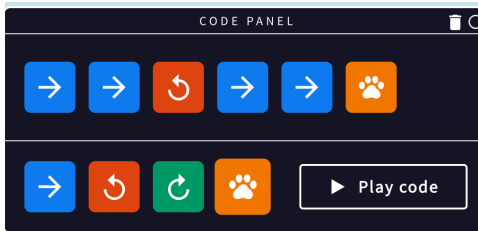


## Action

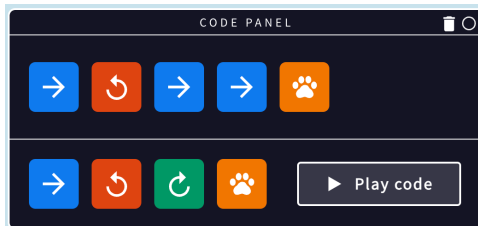
### Level 10



### Level 11



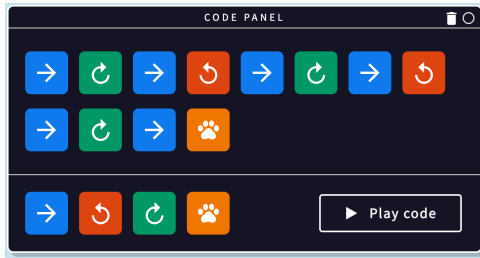
### Level 12



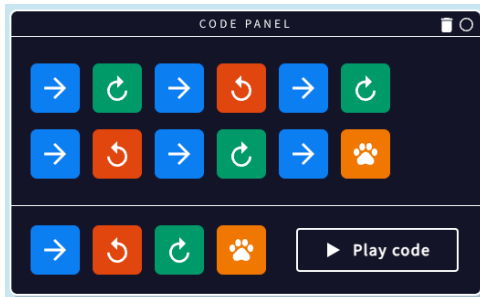
### Level 13



## Level 14

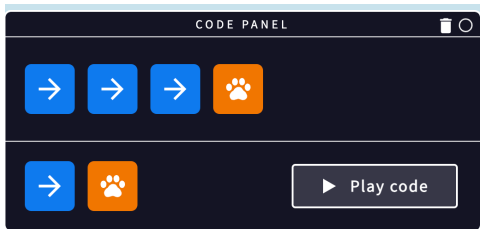


## Level 15

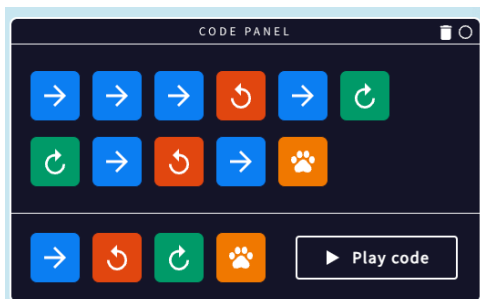


## Condition

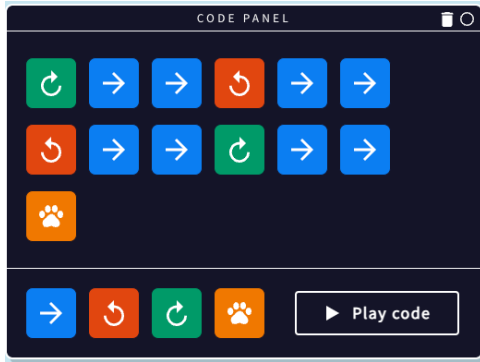
### Level 16



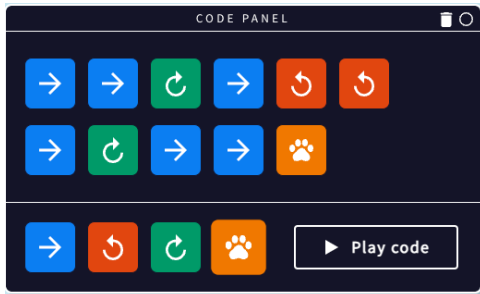
### Level 17



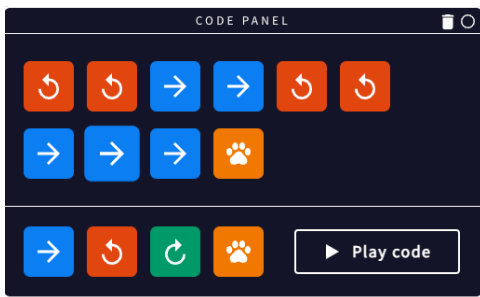
### Level 18



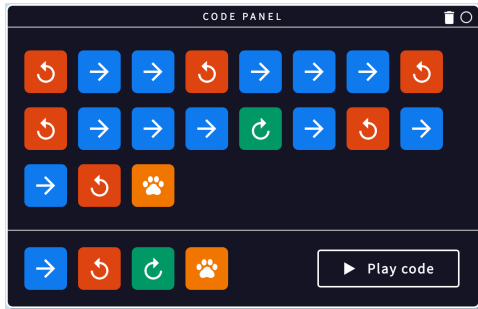
### Level 19



### Level 20

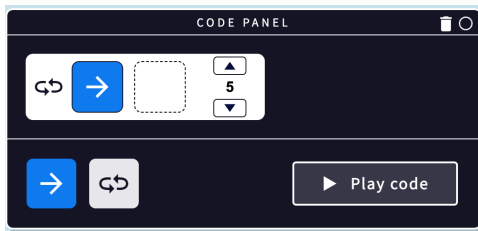


## Level 21



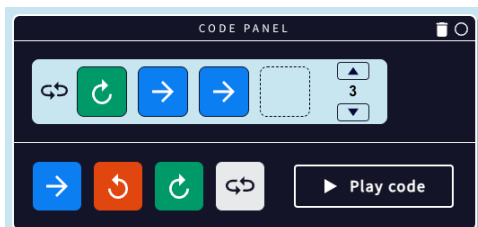
## Looping

### Level 22

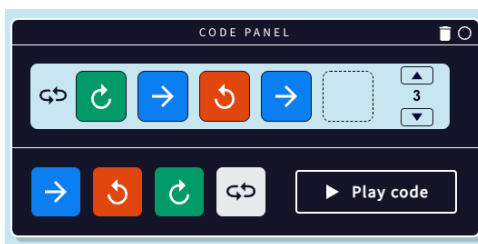


Introduction to **loop** command remember they always take up one more spot than they use. A loop with 3 commands will take up 4 command spots.

### Level 23

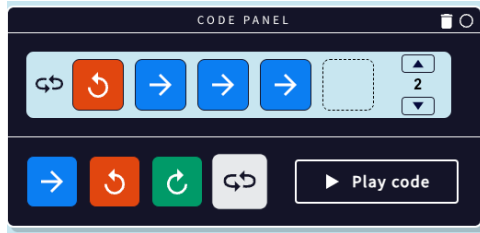


### Level 24





## Level 25



## Level 26

**Tip:** To add a paw after the loop, the loop must be unactive. Click inside the loop to make it unactive/active.



## Level 27

