Little-Dot Adventure

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Link

- https://little-dot.toxicode.fr

About

In this game, the player is given a set of cards that have be to used in the right order to be able to pass the level. So instead of just letting the robot follow the path the student will need to complete the path themselves. This gives the students a better understanding of the commands being used.

Goal

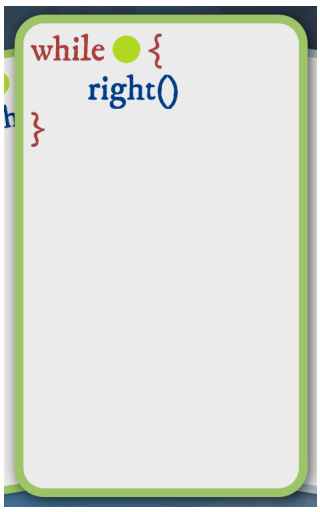
The goal is to teach students about **algorithms** and how to build an algorithm from a set of available options to complete a task. It also introduces some more complex concepts like while loops, and if statements.

Tips

Make sure that the student follows the commands that are stated on the card.

While

- Execute the commands until the conditional statement is false.
- In this example, you will keep going down while you are on a green square.

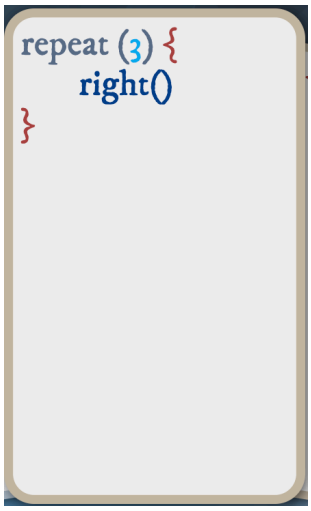


Again

- Does last card again so if you last went right you need to go right again.

Repeat

- Repeat what is between the curly braces for the specified n times.



Conditional

- Only do the command when on that color.

Keys

Level 0

- When opening the level 0 use your arrow keys to move the white dot to the orange square.

Level 1

- Use your arrow keys to move between cards and select any of the cards to finish the level.

Level 2

For this level just follow the path that the arrow shows and the card states.

- Either card works, just follow the commands.

Level 3

- Optional either card works then just follow the commands.

Level 4

1st Card

```
right()
right()
```

2nd Card

```
up()
up()
```

Level 5

1st Card

```
right()
left()
right()
up()
```

Level 6

1st Card

```
right()
up()

right()
up()

right()
up()
```

2nd Card

```
up()
up()
```

Level 7

1st Card

```
repeat(3) {
    left()
}
```

- Repeat the left command 3 times.

2nd Card

```
repeat(3) {
    up()
}
```

- Repeats the up command 3 times.

Level 8

1st Card

```
repeat(3) {
    right()
}
```

2nd Card

```
repeat(4)  {
    up()
}
```

3rd Card

```
left()
```

Level 9

```
while green {
    right()
}
```

Level 10

1st Card

```
right()
```

2nd Card

```
while green {
    right()
}
```

3rd Card

```
right()
```

4th Card

```
while green {
    right()
}
```

Level 11

1st Card

```
right()
```

2nd Card

```
while green {
    up()
}
```

3rd Card

```
repeat(3) {
    left()
}
```

Level 12

1st Card

```
right()
```

or

```
up()
```

2nd Card

```
again()
```

Level 13

1st Card

```
right()
```

2nd Card

```
again()
```

3rd Card

```
up()
```

4th Card

```
again()
```

Level 14

1st Card

```
right()
```

2nd Card

```
up()
```

3rd Card

```
while green {
    again()
}
```

Level 15

1st Card

```
right()
```

2nd Card

```
down()
```

3rd Card

```
while green {
    again()
}
```

Level 16

1st Card

```
while not red {
    right()
}
```

2nd Card

```
up()
```

Level 17

1st Card

```
while not red {
    right()
}
right()
```

2nd Card

```
while green {
    up()
}
```

Level 18

1st Card

```
while not red {
    up()
}
up()
```

2nd Card

```
right()
right()
```

or

```
left()
left()
```

Level 19

1st Card

```
repeat(3) {
    right()
}
```

2nd Card

```
while not red {
    up()
}
up()
```

3rd Card

```
while green {
    left()
}
```

4th Card

```
while not red {
    down()
}
down()
```

Level 20

1st Card

```
while not red {
    up()
}
up()
```

2nd Card

```
while not red {
    right()
}
right()
```

3rd Card

```
while not red {
    down()
}
down()
```

4th Card

```
while not red {
    left()
}
left()
```

Level 21

1st Card

```
up()
up()
```

2nd Card

```
if blue {
    right()
}
```

3rd Card

```
while green {
    up()
}
```

Level 22

1st Card

```
while green {
    right()
}
```

2nd Card

```
if blue {
    right()
}
```

3rd Card

```
while green {
    right()
}
```

4th Card

```
if blue {
    up()
}
```

5th Card

```
while green {
    up()
}
```

Level 23

1st Card

```
right()
```

2nd Card

```
while green {
    down()
}
```

3rd Card

```
if blue {
    up()
}
```

4th Card

```
while green {
    up()
}
```

Level 24

1st Card

```
repeat(4) {
    down()
}
```

2nd Card

```
while green {
    right()
}
```

3rd Card

```
down()
down()
```

Level 25

1st Card

```
repeat(3) {
    left()
}
```

2nd Card

```
repeat(3) {
    right()
}
```

3rd Card

```
repeat(4) {
    up()
}
```

Level 26

1st Card

```
repeat(4) {
    up()
}
```

2nd Card

```
while green {
    left()
}
```

3rd Card

```
repeat(3) {
    up()
}
```

4rd Card

```
repeat(3) {
    up()
}
```

5th Card

```
while green {
    right()
}
```

Level 27

1st Card

```
up()
```

2nd Card

```
repeat(3) {
    if blue {
        up()
    }
    left()
}
```

3rd Card

```
while not red {
    right()
}
right()
```

Level 28

1st Card

```
left()
```

2nd Card

```
while not red {
    down()
}
down()
```

3rd Card

```
repeat(4) {
    if blue {
        up()
    }
    right()
}
```

Level 29

1st Card

```
while green {
    left()
}
```

2nd Card

```
repeat(4) {
    if blue {
        up()
    }
    right()
}
```

3rd Card

```
while green {
    right()
}
```

Level 30

1st Card

```
while green {
    up()
}
```

2nd Card

```
if blue {
    left()
}
```

3rd Card

```
while green {
    down()
}
```

4th Card

```
if blue {
    right()
}
```

5th Card

```
while green {
    right()
}
```

Level 31

1st Card

```
while green {
    left()
}
```

2nd Card

```
if blue {
    right()
}
```

3rd Card

```
while green {
    up()
}
```

4th Card

```
if blue {
    right()
}
```

5th Card

```
while green {
    right()
}
```

Level 32

1st Card

```
while not red {
    left()
}
left()
```

2nd Card

```
while not red {
    up()
}
up()
```

3rd Card

```
while not red {
    right()
}
right()
```

4th Card

```
while not red {
    down()
}
down()
```

Level 33

1st Card

```
while not red {
    up()
}
up()
```

2nd Card

```
while not red {
    down()
}
down()
```

3rd Card

```
while not red {
    right()
}
right()
```

4th Card

```
while not red {
    right()
}
right()
```

Level 34

1st Card

```
repeat(3) {
    up()
}
```

2nd Card

```
repeat(3) {
    down()
}
```

3rd Card

```
repeat(3) {
    left()
}
```

4th Card

```
repeat(3) {
    right()
}
```

5th Card

```
repeat(6) {
    up()
}
```

Level 35

1st Card

```
while not red {
    up()
}
up()
```

2nd Card

```
while not red {
    left()
}
left()
```

3rd Card

```
while not red {
    down()
}
down()
```

4th Card

```
while not red {
    right()
}
right()
```

5th Card

```
while not red {
    up()
}
up()
```

End Screen