

Jeroo

Basics



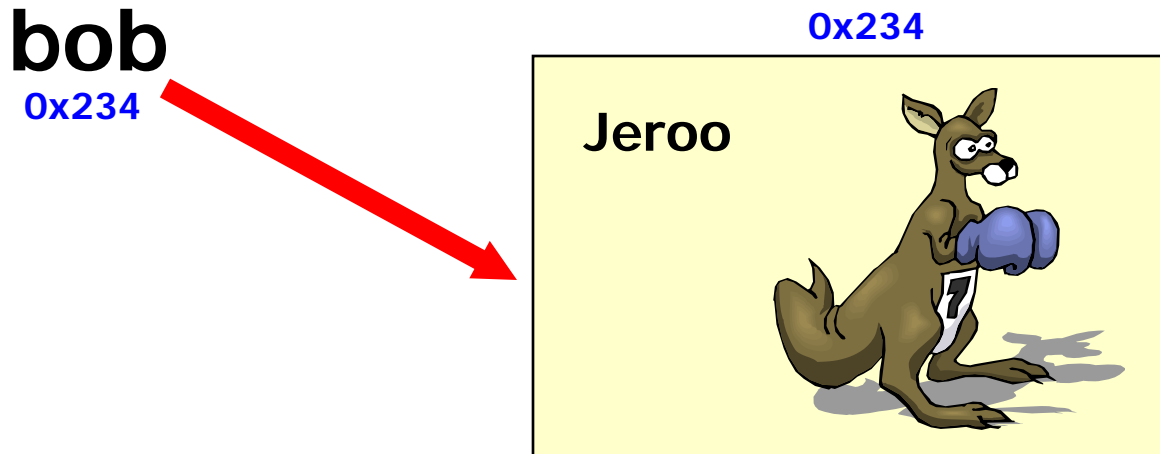
I ain't no
Kangaroo
boy – I'm a
Jerooster!

What is Jeroo?

- **Jeroos are a rare mammal similar to the wallabies of Australia.**
- **Jeroos live on Santong Island.**
- **Jeroos eat the winsum flower which grows on the island.**

Object Instantiation

```
Jeroo bob = new Jeroo();
```



Bob is a reference variable that refers to a Jeroo object which is located at (0,0).

constructors

```
Jeroo bob = new Jeroo();
```

```
//creates a Jeroo at location (0,0)
```

```
Jeroo bob = new Jeroo(5,15);
```

```
//creates a Jeroo at location (5,15)
```

```
Jeroo jim = new Jeroo(5);
```

```
//creates a Jeroo at (0,0) with 5 flowers
```

```
Jeroo sue = new Jeroo(2,11,9);
```

```
//creates a Jeroo at (2,11) with 9 flowers
```

constructors

```
Jeroo jan = new Jeroo(11,7,WEST);
```

```
//creates a Jeroo at location 11,7  
//that is facing WEST
```

```
Jeroo dan = new Jeroo(8,2,EAST,3);
```

```
//creates a Jeroo at location 8,2  
//that is facing EAST with 3 flowers
```

Seeing a Jeroo

The screenshot shows a Java IDE with the following components:

- Source File**: Contains icons for file operations (new, open, save, print, etc.).
- Source Edit**: The main code editor window.
- Run**: Contains icons for running and debugging the code.
- Run Speed**: A slider control with a scale from 1 to 6.
- Island File**: Contains icons for saving and loading island files.
- Island Edit**: Contains icons for editing the island grid.
- Help**: Contains icons for help and documentation.

In the **Source Edit** window, the **main method** tab is selected, showing the following code:

```
method main()
{
    Jeroo bob = new Jeroo ();
}
```

A red arrow points from the `new Jeroo ()` expression in the code to the top-left corner of a large grid visualization on the right. The grid is a 20x20 array of green squares, representing the island environment. A blue border surrounds the grid, and a small blue arrow icon is visible at the top-left corner of the grid.

This code creates a Jeroo at location 0,0.

Open

jeroo_constructors.jsc

**What can
a Jerroo
do?**



Jeroo

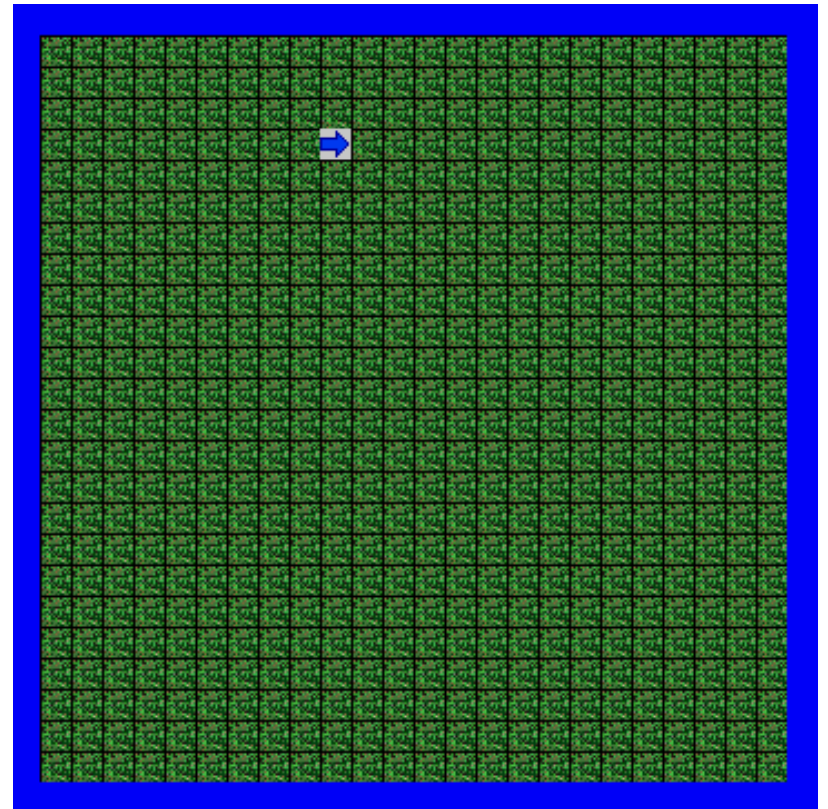
frequently used methods

Name	Use
<code>hop()</code>	move one step
<code>hop(count)</code>	move count steps
<code>pick()</code>	pick up a flower
<code>plant()</code>	plant a flower at this location
<code>toss()</code>	toss a flower one spot ahead
<code>give(dir)</code>	give a flower to a jeroo in direction dir
<code>turn(dir)</code>	turn in a direction dir

hop()

```
Jeroo dude = new Jeroo(3,3);  
dude.hop();  
dude.hop();  
dude.hop(3);  
dude.hop();
```

hop() moves the Jeroo to a new cell based on its current direction.
hop() has two forms.

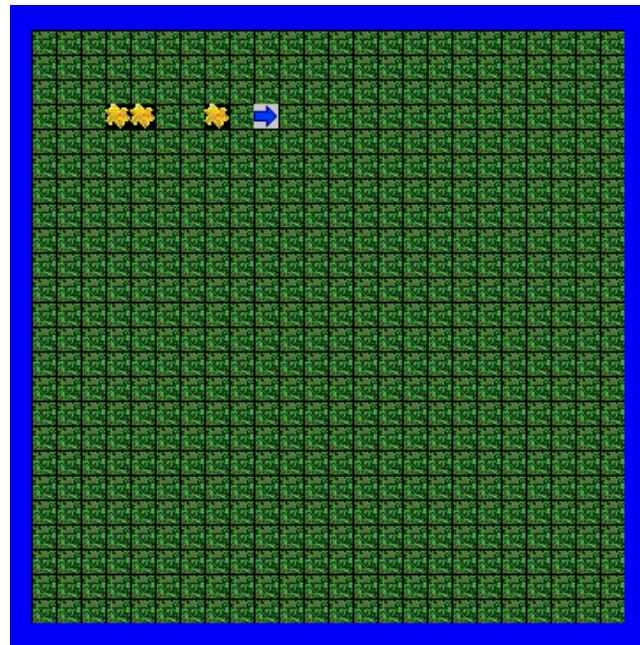


Open

jeroo_hop.jsc

plant()

```
Jeroo dude = new Jeroo(3,3,7);  
dude.plant();  
dude.hop();  
dude.plant();  
dude.hop(3);  
dude.plant();  
dude.hop(2);
```



plant() places a flower in the Jeroo's current position if the Jeroo has flowers remaining.

Open

jeroo_plant.jsc



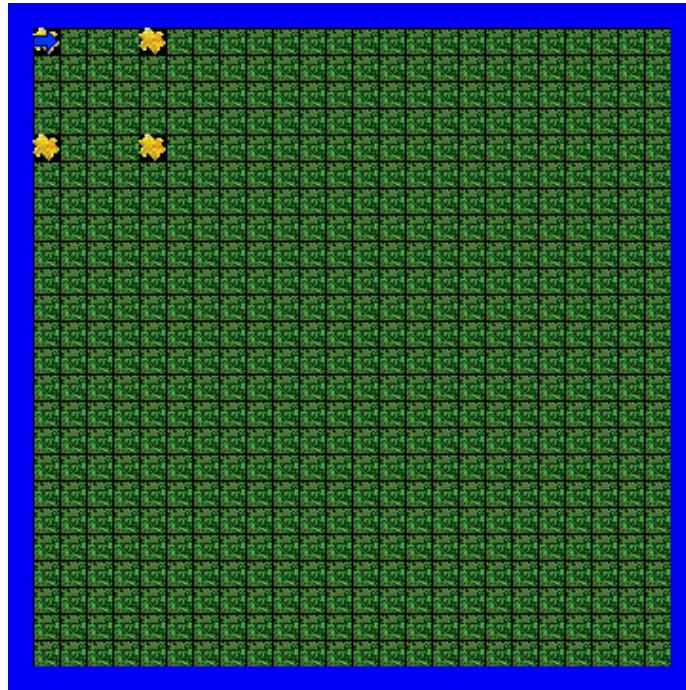
Jeroo

frequently used directional fields

Name	Use
LEFT	Left of the current dir by 90 degrees
RIGHT	Right of the current dir by 90 degrees
AHEAD	Location in front of this Jeroo
HERE	Location of this Jeroo

turn()

```
Jeroo bob = new Jeroo(4);  
bob.hop(4);  
bob.plant();  
bob.turn(RIGHT);  
bob.hop(4);  
bob.plant();  
bob.turn(RIGHT);  
bob.hop(4);  
bob.plant();  
bob.turn(RIGHT);
```



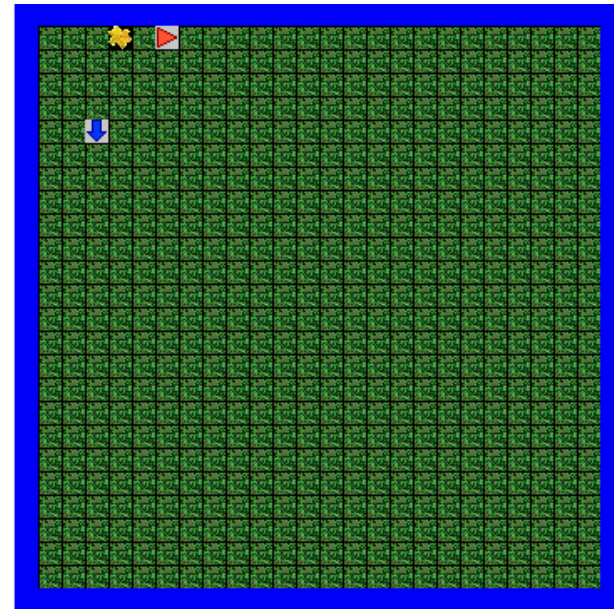
turn() changes the direction of the Jeroo to the provided direction.

Open

jeroo_turn.jsc

give()

```
Jeroo bob = new Jeroo(2);  
Jeroo ann = new Jeroo(0,3);  
bob.hop();  
bob.hop();  
bob.give(AHEAD);  
ann.plant();  
bob.turn(RIGHT);  
bob.hop(4);  
ann.hop(2);
```



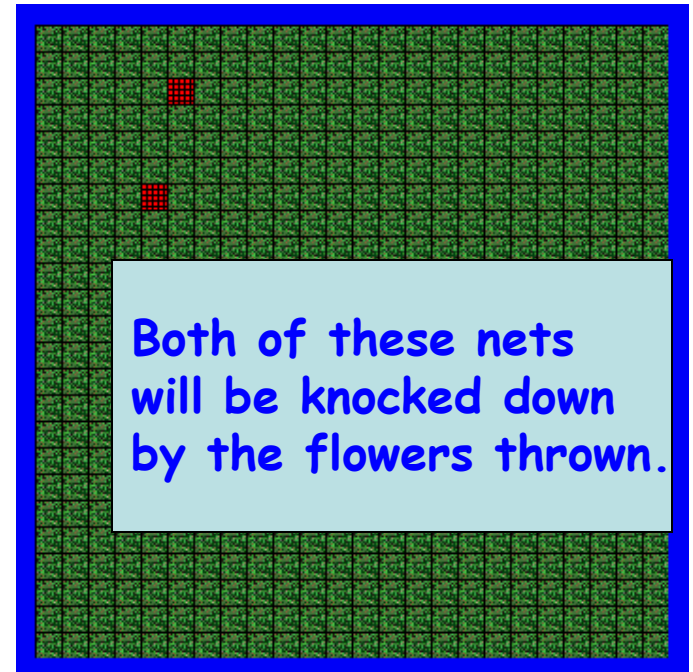
give() hands a flower to the Jeroo in the specified direction.

Open

jeroo_give.jsc

toss()

```
Jeroo dude = new Jeroo(2,2,2);  
dude.hop();  
dude.hop();  
dude.toss();  
dude.turn(RIGHT);  
dude.hop(3);  
dude.toss();  
dude.turn(RIGHT);
```



toss() throws a flower one cell in front of the Jeroo based in its current direction. A thrown flower can knock down a net.

Open

jeroo_toss.jsc

Open

jeroo_move.jsc

**Start work on
Basic Labs**