

How Alice Objects see the world

The key to understanding how Alice objects see the world is to understand that every Alice object has a pivot point (usually at the base of the object.) and its own sense of orientation.

To an Alice object, moving forward means to move in the direction it is facing. If it is facing left, then moving forward will move to OUR left. If it has its back to us, then moving forward will mean moving away from us. If it is lying on its back, then moving forward will mean moving up into the air.

The move, turn, and roll procedures in Alice each require two arguments: the direction and the amount.

```
this.chicken.move( direction: ??? , amount: ??? )
```

```
this.chicken.turn( direction: ??? , amount: ??? )
```

```
this.chicken.roll( direction: ??? , amount: ??? )
```

These arguments are indicated by ??? in the procedures panel. When we drag one of these procedures into our code, we will select the direction from a drop down box.



The amount is always a decimal number. We can select one of several values from a list or select custom decimal number to type in our own values.

The amount for turn and roll is based on 1 being a full circle. If we turn an object to the left 1, it will turn all the way around and back to where it started. If the object is facing the camera, turning left 0.5 will make it turn its back to us. A turn of 0.25 will turn it to the side.

From this starting position, with a chicken facing the camera, as in the first picture, a left turn of 0.25 will result in the chicken facing the right side of the screen. Remember, turning left means the chickens left, not OUR left.



From the same starting position, roll left 0.125 will result in the picture shown here with the chicken tipped to his left side.

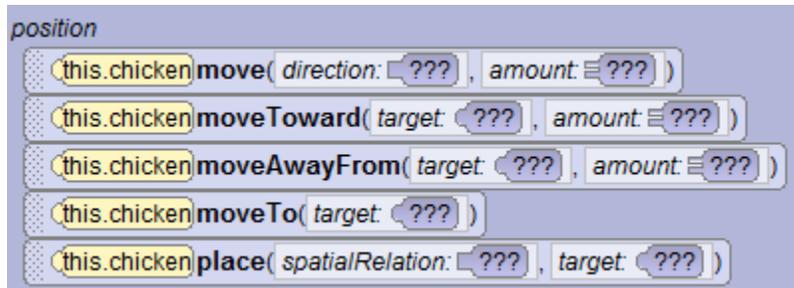


Turn and roll change the objects orientation, but not his position.

Move changes the position, but not the orientation.

Procedures

All objects have the procedures move, turn and roll. In the procedures panel you will see move listed as one of the procedures that changes position. Each procedure shows the arguments that are required.



You will see turn and roll listed as procedures that change orientation.



Special Procedures

Some objects have additional procedures. If you scroll to the bottom of the procedures panel, you may see a group called other. With the chicken we can spread and fold its wings. Notice that these procedures do not have any arguments. Other objects may have other special procedures that apply to that class.

