

Model 6 – Flying Bird



January 2011

## Model 6 – Flying Bird LEGO Education WeDo



### Connect - Preparation and discussion

The children could discuss these questions during circle time, or you could devise activities to address them.

- There are many kinds of birds. Can you name some?
- What do birds have that you don't?
- Do you have birds at home? In your house? Around your house?
- If you were a bird, how would you move? How would an eagle move? How does a little hummingbird move?
- What do birds sound like when they sign or call? Do they all have the same songs?
- Can anyone sign or call like a bird?
- Did you know that birds have special songs that they repeat to communicate with other birds?

### Engaging question:

Can you build a bird that flaps its wings and sings?

\* Show the children the poster of the Flying Bird to get them thinking about building this model.

### Construct

Model 6 – Flying Bird

## Contemplate and discuss

Tips that are given to the students on the site.



### Tip to launch the programme

Use the green arrow pictogram.



### Tip to stop a programme

Click on the red square.



### Tip for the sound

Put together the music notes and the "123" pictograms. Place your cursor on 123. When the letter "T" appears, you can type a number. You can choose among 20 sounds: numbers 1 to 20.



### Tip for the tilt sensor

On the grey brick, there is an arrow. The tilt sensor tells the computer which way it is pointing. You can program it 6 different ways: up, down, left, right, no tilt (just straight) and any tilt (any way). You click on the pictogram to make your choice.

There are 6 positions.



No tilt



Left



Right



Up



Down



Any



### Tip to program the tilt sensor

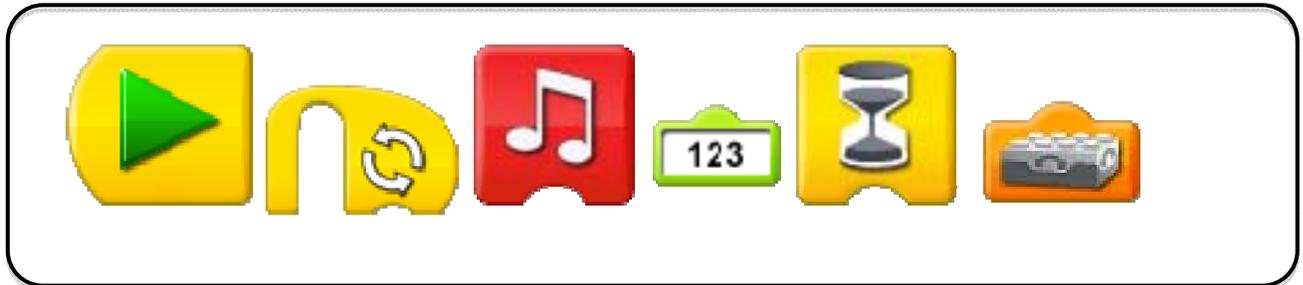
Use the hour glass pictogram and the tilt sensor (the one with the arrow on its side). Click on it to choose the one that point the way you



### Tip for the Repeat Block

To make the programme run continuously, use the repeat block.

## Pictograms to use in the challenges



Here are a few challenges the children can do in class.

Before starting the challenges, explore the following questions :

What happens when you tilt the bird's tail up using your hand?  
What happens when you tilt the bird's tail down using your hand?

- How would you make the bird raise its wings?
- How do you make the wings come down?
- How would you make the bird flap its wings up and down, up and down? Slowly? Fast?
- How would you make the bird peck the ground for seeds?

### **Challenge 1**

Find the sound of the bird song.

### **Challenge 2**

Make the bird sing non stop. Use the Repeat Block

### **Challenge 3**

Make the bird sing when you bring down its tail. You need to choose the right motion sensor to do that.

### **Challenge 4**

Make the bird sing when it pecks the ground for seeds. It does that when you raise its tail, so be careful to choose the right motion sensor to do that.

### **Challenge 5**

Make the bird eat so that it sings each time it pecks the ground. Use the Repeat Block.

### **Continue**

Each team creates its own challenge using the pictograms in the exercises above. Plan a time during which each team can explain and show their challenge to the class.

Model 6 – Flying Bird  
Correction Key

Contemplate and share

Challenge 1

Find the sound of the bird song.



Challenge 2

Make the bird sing non stop. Use the Repeat Block



Challenge 3

Make the bird sing when you bring down its tail. You need to choose the right motion sensor to do that.



#### Challenge 4

Make the bird sing when it pecks the ground for seeds. It does that when you raise its tail, so be careful to choose the right motion sensor to do that.



#### Challenge 5

Make the bird eat so that it sings each time it pecks the ground. Use the Repeat Block.



#### Continue

Each team creates its own challenge using the pictograms in the exercises above. Plan a time during which each team can explain and show their challenge to the class.

**Note to teacher:** The challenge could take the form of a story.

**The answers are personal for each team**



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