Model 11 - Giant Escape

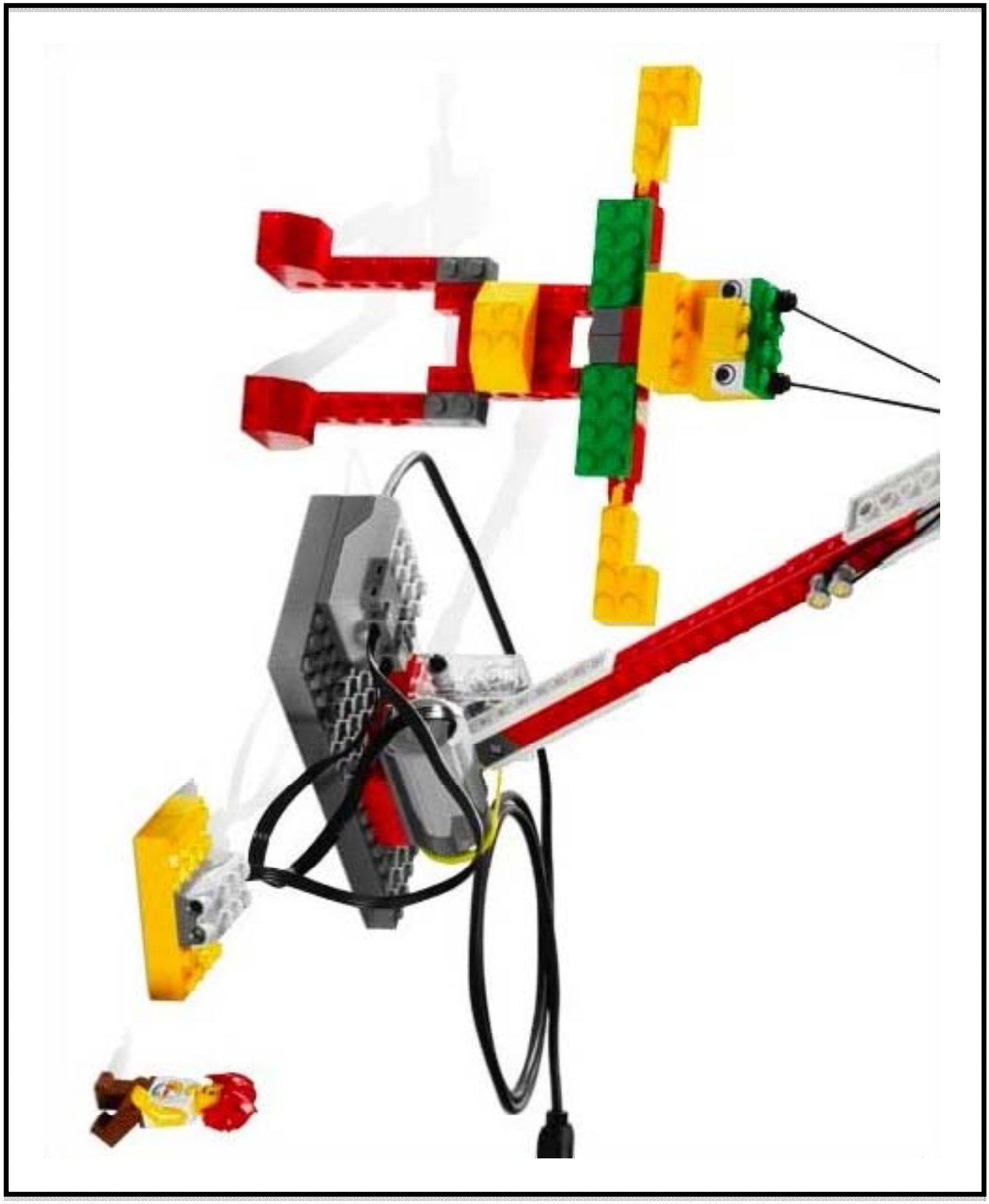

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Image source: LEGO Education WeDo

Model 11 - Giant Escape
LEGO Education WeDo

Connect – Preparation and discussion

There are many picture books you could use to introduce the topic of giants. The children could also do this circle time activity:

- Does anyone want to play the role of a sleeping giant? The giant is resting on the floor. Do two other people want to prowl around the giant? Can these two people come very near to the giant without waking him? How close can they come?
- What noise could the giant make when he wakes up?
- Is the giant gentle or mean?

Engaging question
Can you build a giant that wakes up and stands up?

***** Show the children the poster of the model of the giant to get them thinking about building this model.

Construct
Model 11 - Giant Escape

Image source: LEGO Education WeDo

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 to program the duration (time)
Use the motor time pictogram and the 123 one. Place the cursor in the 123 box. When the letter “T” appears, type the number for the time you want.

Tip for the time
If you want the robot to move for 1 second, type 1 and add a 0. If you want it to move 2 seconds, type 2 and add a 0. If you want it to move 3 seconds, you know what to type and to add.

Pictograms to use in the challenges

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

***Note to teacher:** This model is difficult to program precisely. To make it easy, we suggest you begin by running the motor for 1 second. Because of the weight, it takes longer to raise the giant than to lower him. See the video on the Web site that shows you how to deal with this robot's particular challenges.*

Challenge 1

Make the giant snore.

Challenge 2

Find how many seconds it takes to make the giant get up a little bit.

Challenge 3

Find how many seconds it takes to make the giant lie down again and take a nap.

Challenge 4

Make the giant get up, lie down and get up again. Use the times that worked in 2 and 3.

Challenge 5

Make the giant lie down and make him snore after he is down.

Continue

Each team creates its own challenge using the pictograms in the exercises above. They can add sounds to make a jolly or mean giant or try the strategies found in the on-line video. Older or more advanced students could add a motion sensor as shown on the cover page of this document and program the giant to get up when it detects movement nearby. Plan a time during which each team can explain and show their challenge to the class.

Model 11 - Giant Escape
Correction Key

Contemplate and discuss

Challenge 1

Make the giant snore.

Challenge 2

Find how many seconds it takes to make the giant get up a little bit. (Note: this just raises the giant's head. By running the program several times in a row, they could find out how long it takes to get him upright)

Challenge 3

Find how many seconds it takes to make the giant lie down again and take a nap.
(Note: you can use this 1 second increment program to find out how long it takes to get him back down. It will take less time. See the on-line video)

Challenge 4

Make the giant get up, lie down and get up again. Use the times that worked in 2 and 3.

Note: using 10 in this sequence raises and lowers the head only. See the on-line video to find out how to avoid problems when you lower the giant from a greater height.

Challenge 5

Make the giant lie down and make him snore after he is down.

Continue

Each team creates its own challenge using the pictograms in the exercises above. They can add sounds to make a jolly or mean giant or try the strategies found in the on-line video. Older or more advanced students could add a motion sensor as shown on the cover page of this document and program the giant to get up when it detects movement nearby. Plan a time during which each team can explain and show their challenge to the class.

The answers are personal for each team.

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