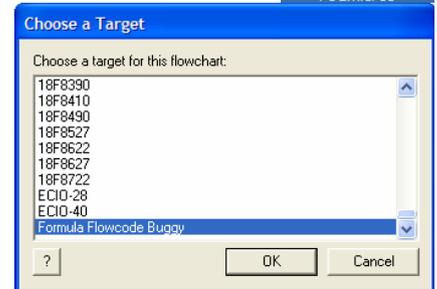


Run the software

Run Flowcode V4 by double clicking on this icon.
Select "Create a new Flowcode flowchart..." on the opening screen and click "OK".



Select the "Formula Flowcode Buggy" as the target device and click "OK" (see screenshot above).



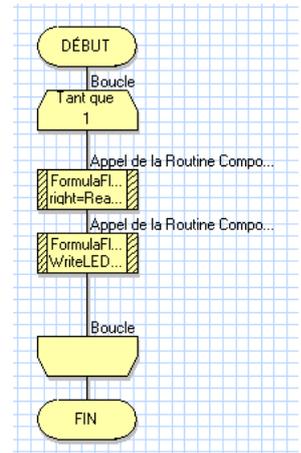
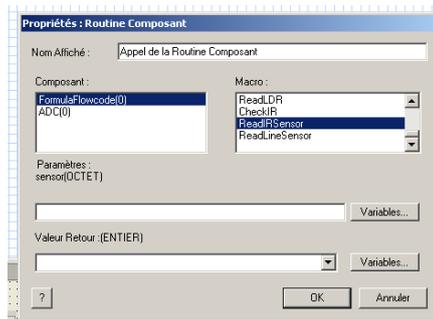
Click the "Formula Flowcode" component icon:

Testing the Infra Red sensors (IR)

The goal: in this activity you will test the IR sensors to determine the value you need for the robot to know if there is a wall in front of it and if there is a wall on its side.

The program you will write will display the value of the IR sensor on the LEDs. The sensor gives a value between 0 and 255. This program will display this value on the LEDs as a pattern representing the binary equivalent of this value.

2 ⁷ = 128	2 ⁶ = 64	2 ⁵ = 32	2 ⁴ = 16	2 ³ = 8	2 ² = 4	2 ¹ = 2	2 ⁰ = 1	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	= 0b00000111 = 0x07 = 4+2+1 = 7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	= 0b10000010 = 0x82 = 128+2 = 130
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	= 0b11000011 = 0xC3 = 128+64+2+1 = 195
<input type="checkbox"/>	<input checked="" type="checkbox"/>	= 0b01110110 = 0x76 = 64+32+16+4+2 = 118						
7	6	5	4	3	2	1	0	



If you put an "L" in the box parameter then the value of the **left** sensor will be read.
If you put an "R" in the box parameter then the value of the **right** sensor will be read.
If you put an "F" in the box parameter then the value of the **front** sensor will be read.

Number of your robot: _____
Appropriate left value: _____
Appropriate right value: _____
Appropriate front value: _____

Testing the line follower sensors

Do the same to test the line follower sensor and write your conclusion in the box: