

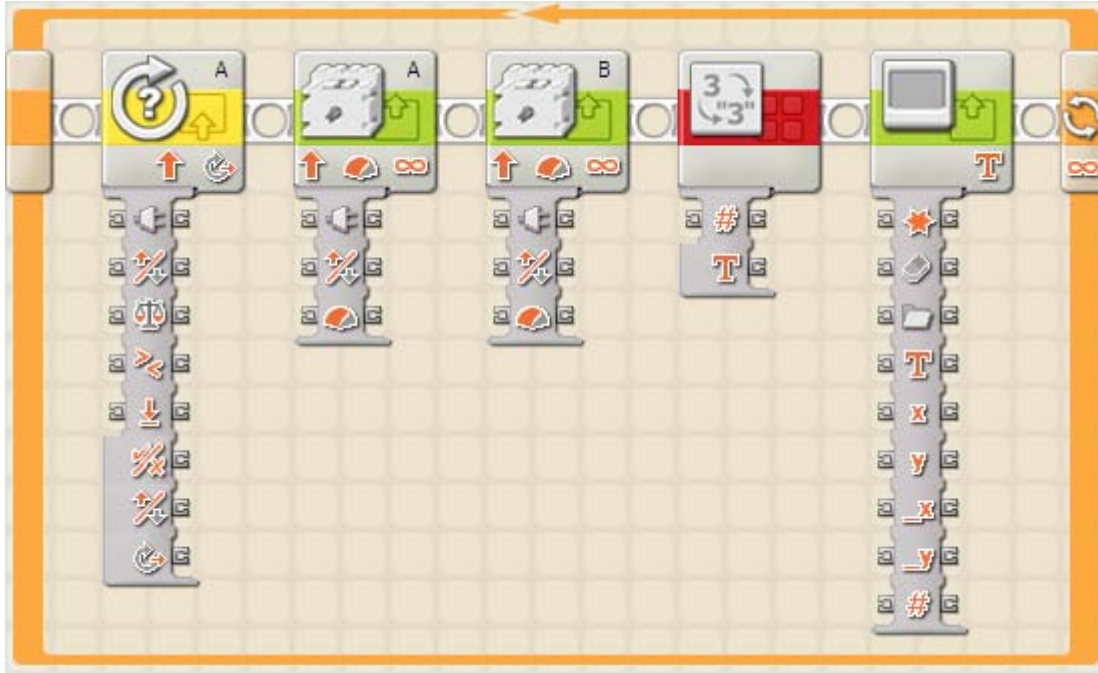
BUILD IT

Vertical Challenge NXT Questions

Name: _____

Date: _____

1. Consider the following incomplete program:



The goal of this program is to control both motors using the rotation sensor and to display the rotation angle on the screen. All that has to be done is to add data wires. Draw them in the picture above, and make sure that they are connected to the appropriate plugs so that the program will work correctly. Use **solid lines** for *number data*, **dashed lines** for *logic data*, and **dotted lines** for *text data*.

2. Next to each picture, write the number of the appropriate description.

Picture

Description



(1) Rotation Sensor

(2) Touch Sensor



(3) Loop

(4) Light Sensor



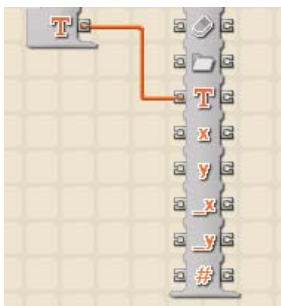
(5) Motor*



(6) Sound Sensor

(7) Ultrasonic Sensor

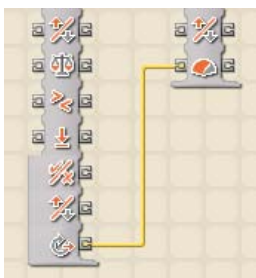
(8) Number Data



(9) Logic Data

(10) Text Data

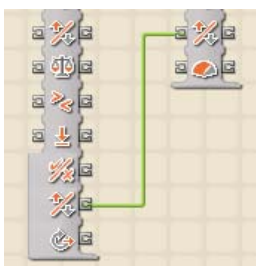
(11) Switch



(12) Number to Text Converter

(13) Direction Plug (More than one.)

(14) Text Plug (More than one.)

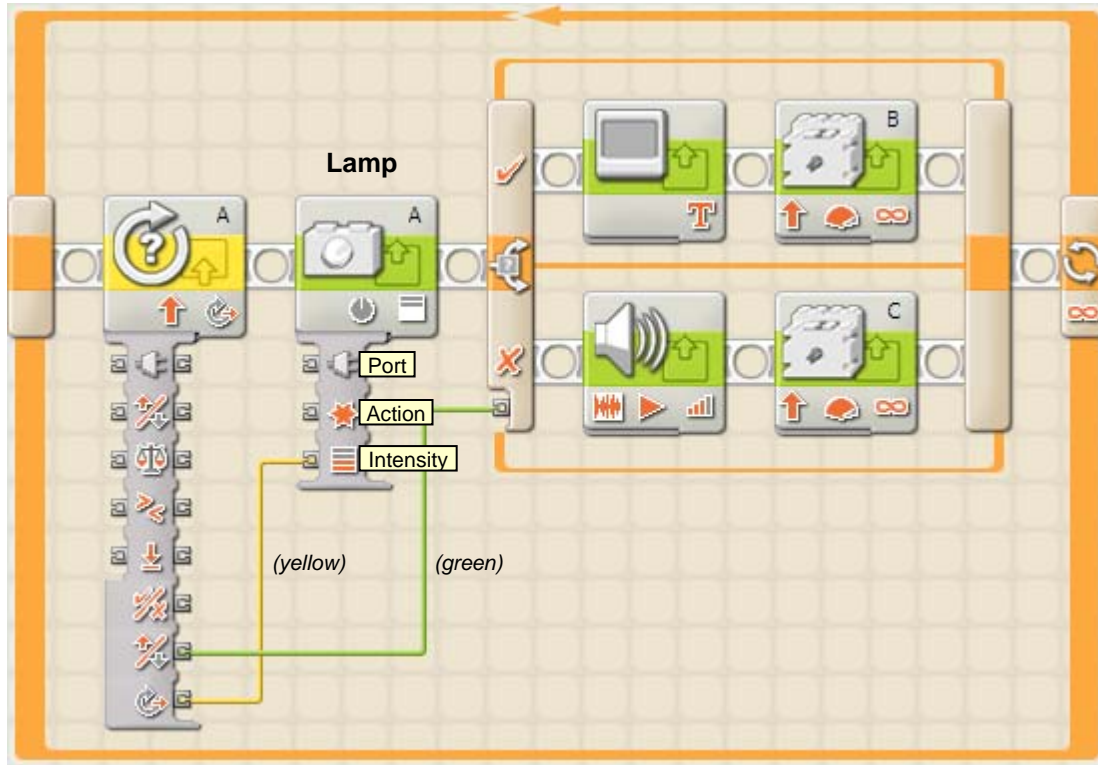


(15) Degrees Plug

(16) Power Plug (More than one.)

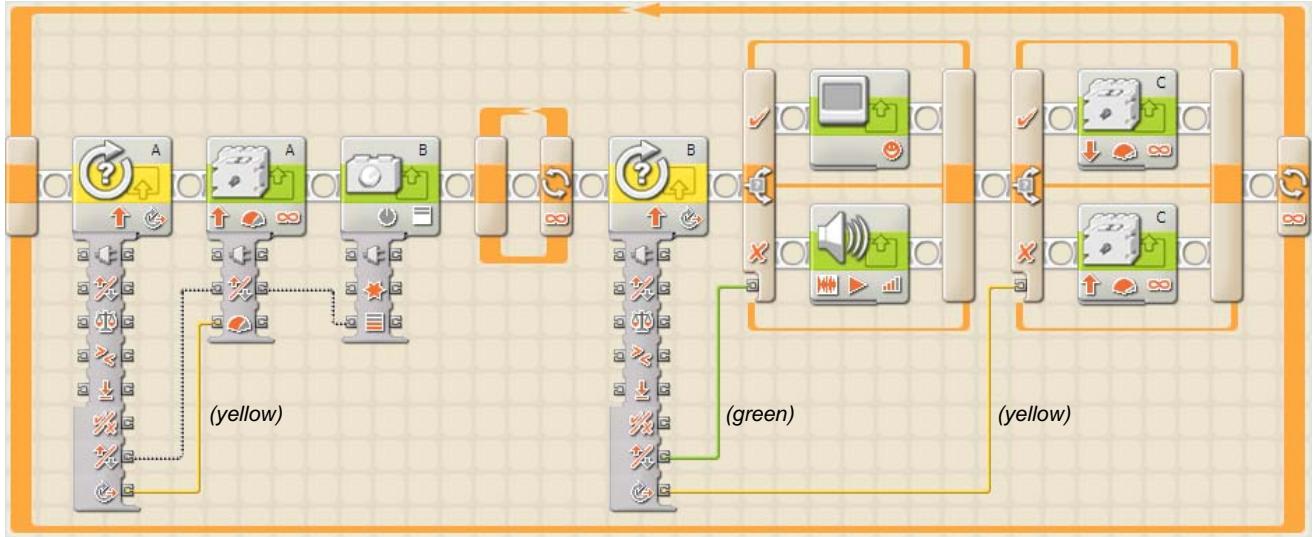
(17) Lamp

3. Consider the following program:



What does it do?

4. The program below has 3 problems, or bugs, which will prevent it from working correctly:



Circle each bug, put a number next to it (1, 2, or 3), and briefly describe it below.

Bug Number	Description
(1)	
(2)	
(3)	