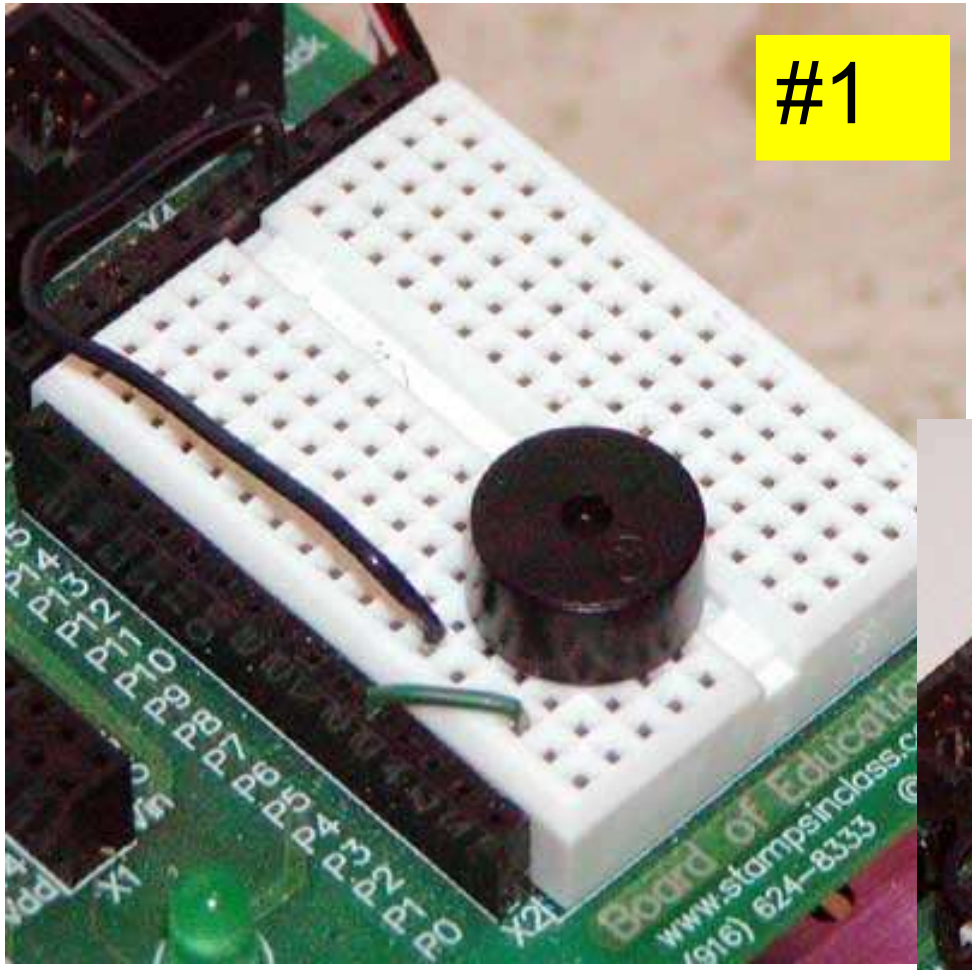
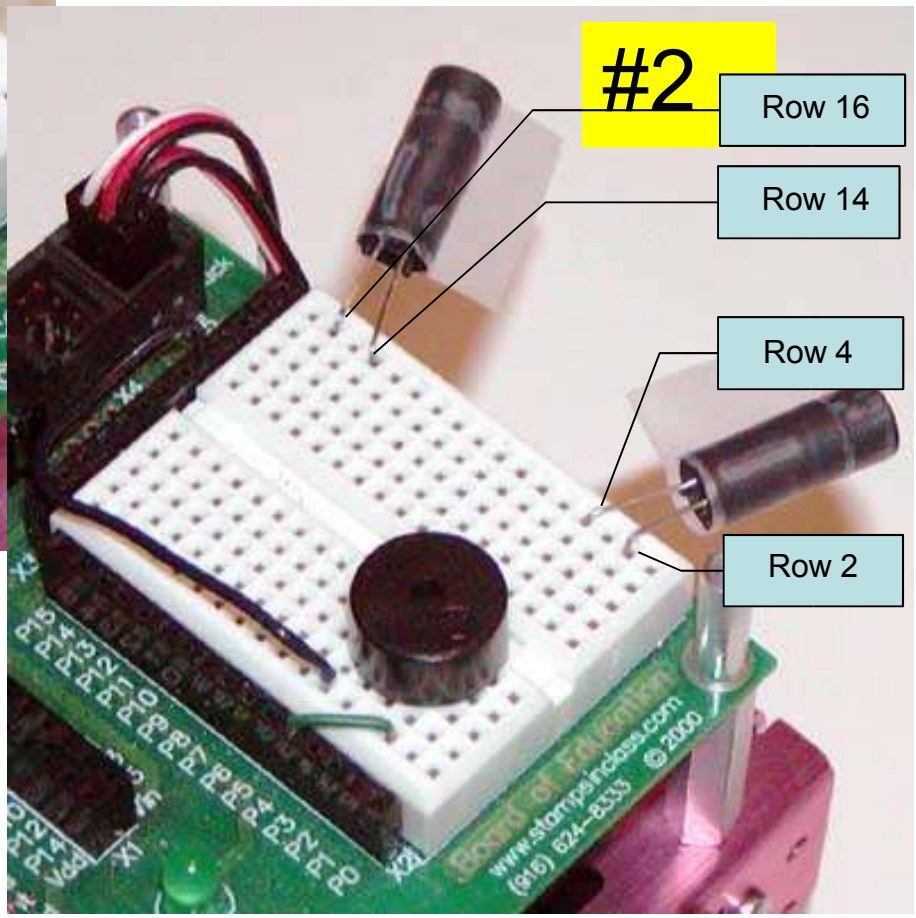
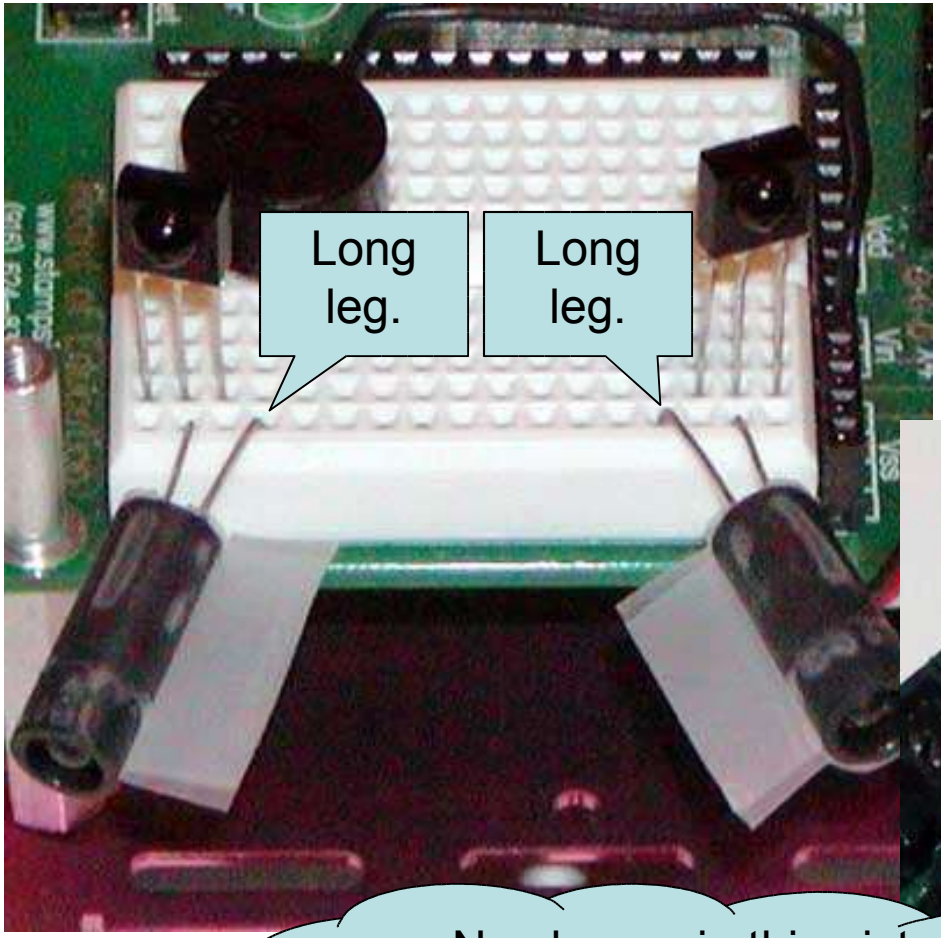
Wiring the IR sensors on the Boe-Bot breadboard

Preparing to run the ‘FollowingBoeBot’ program.



The wiring in this presentation is intended to match figure 7-5 in the Robotics v2.0 book written by Andy Lindsay.

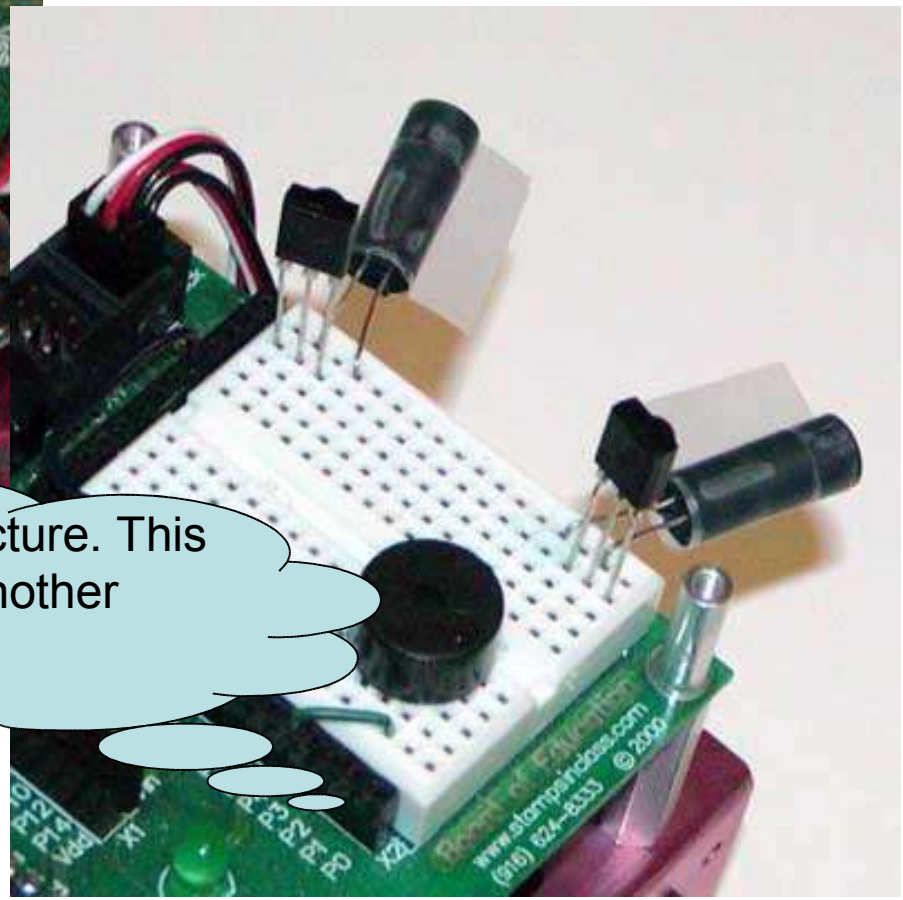




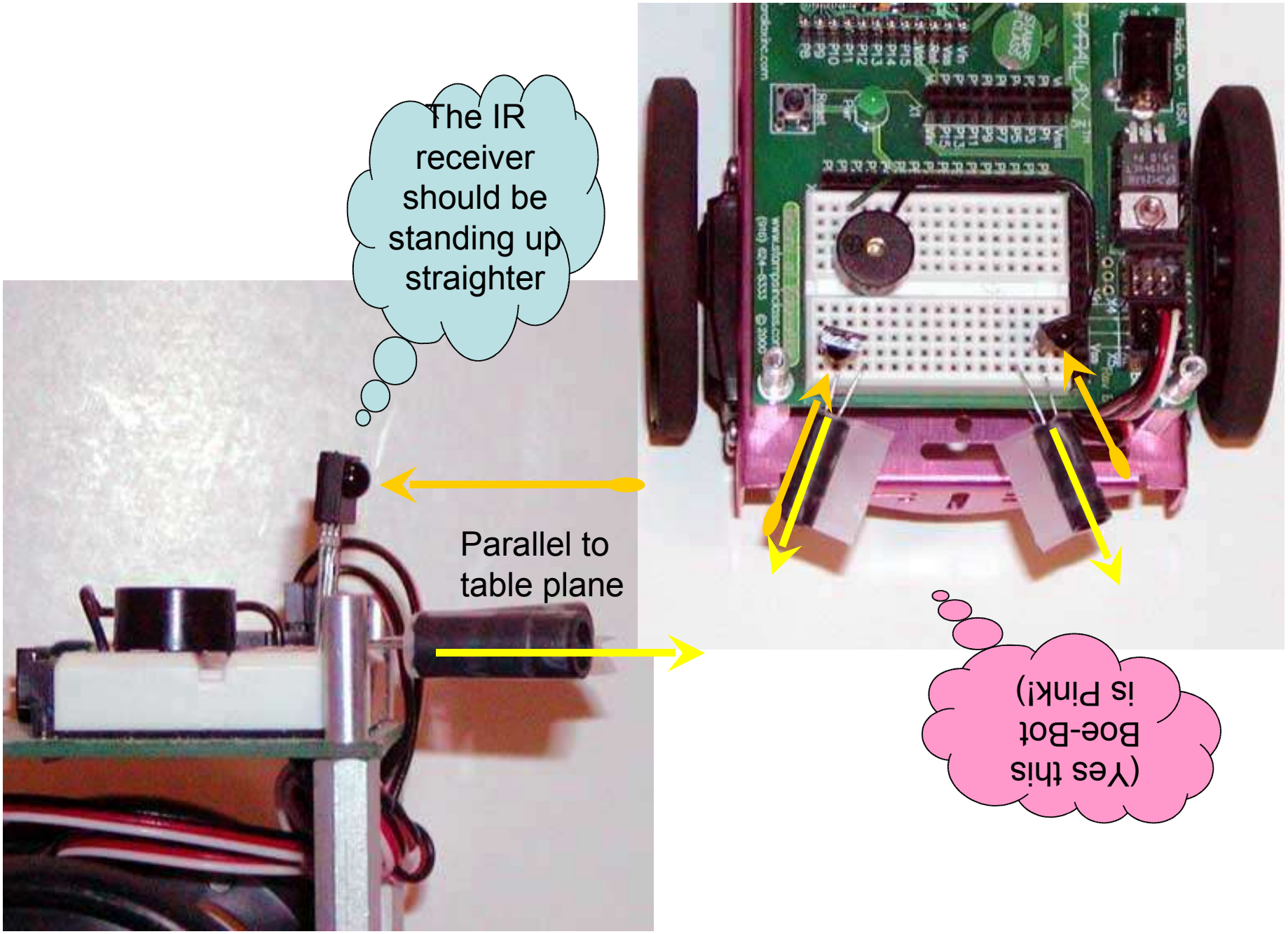
I used cellophane tape to hold the tubing together and then left a tab on the side of the LED that has the long leg.

The long leg of the LED's are on the inside.

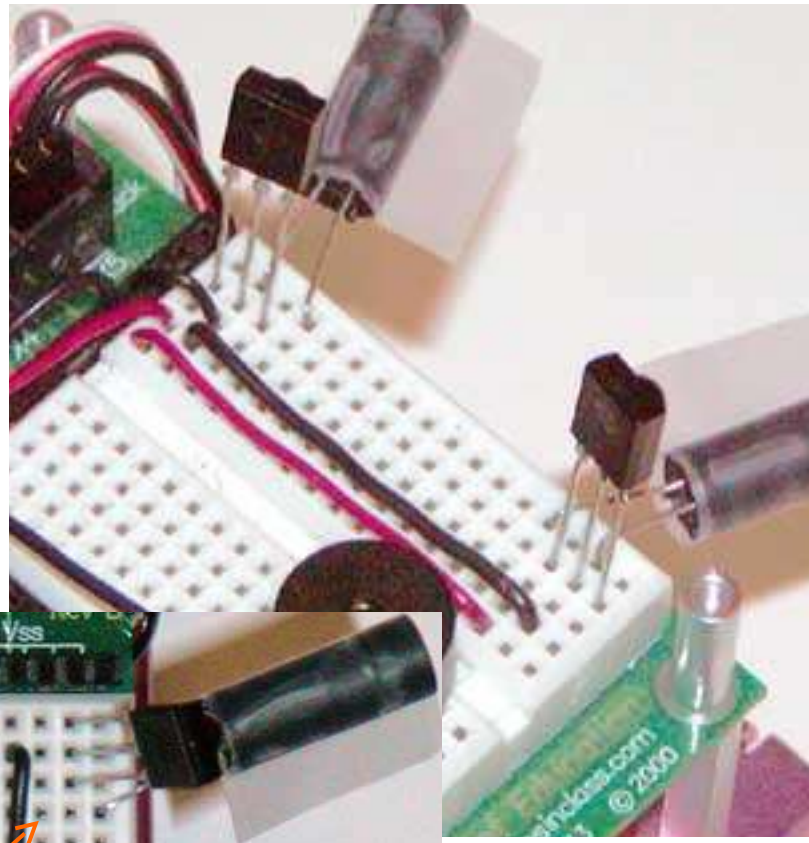
#3

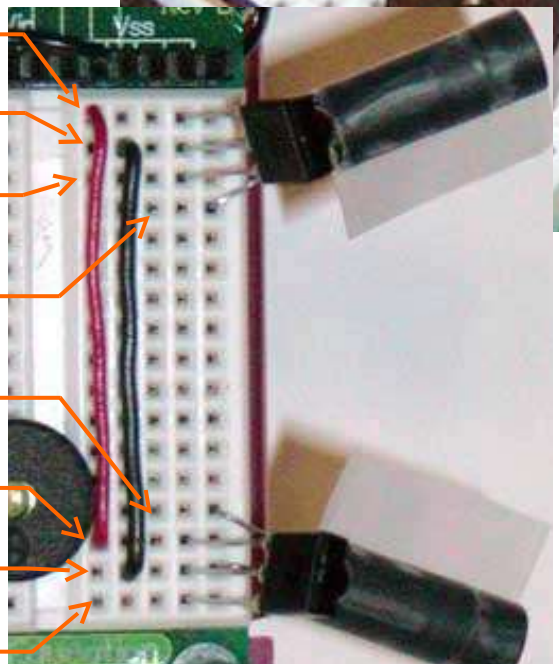


No change in this picture. This is a view from another direction.


The IR receiver should be standing up straighter
Parallel to table plane
(Yes this Boe-Bot is Pink!)

Lets check to make sure the components are in the correct breadboard rows.





Row 17 – Red wire, 3rd leg of Receiver

Row 16 – Black wire, 2nd leg of Receiver, short leg of LED

Row 15 – 1st leg of Receiver

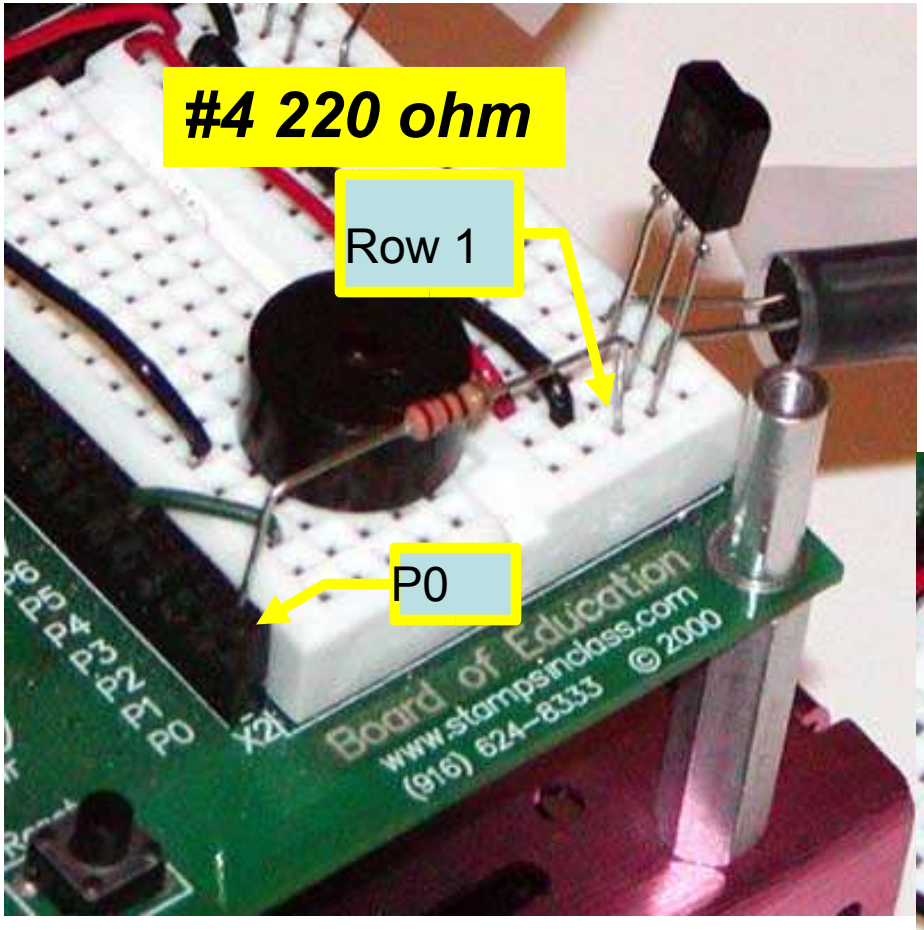
Row 14 – long leg of LED

Row 4 – long leg of LED

Row 3 – Red wire, 3rd leg of Receiver

Row 2 – Black wire, 2nd leg of Receiver, short leg of LED

Row 1 – 1st leg of Receiver


#4 220 ohm
Row 1
P0
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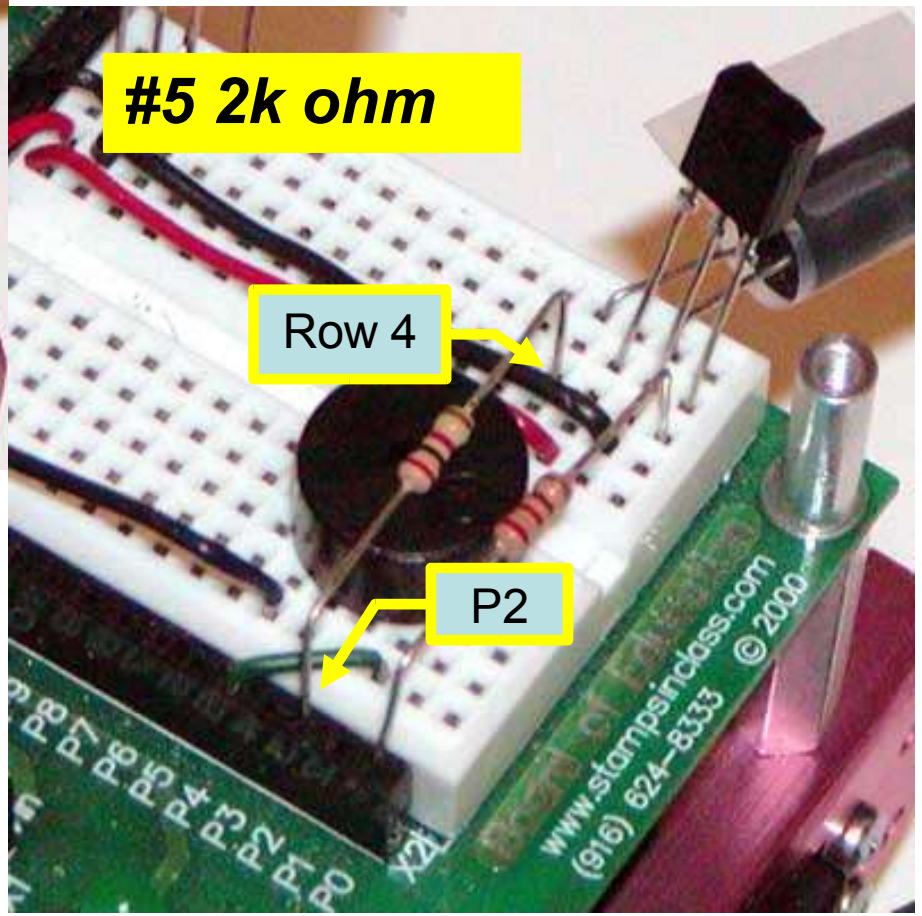
P6 P5 P4 P3 P2 P1 P0
X2


#5 2k ohm
Row 4
P2
www.stampsinclass.com
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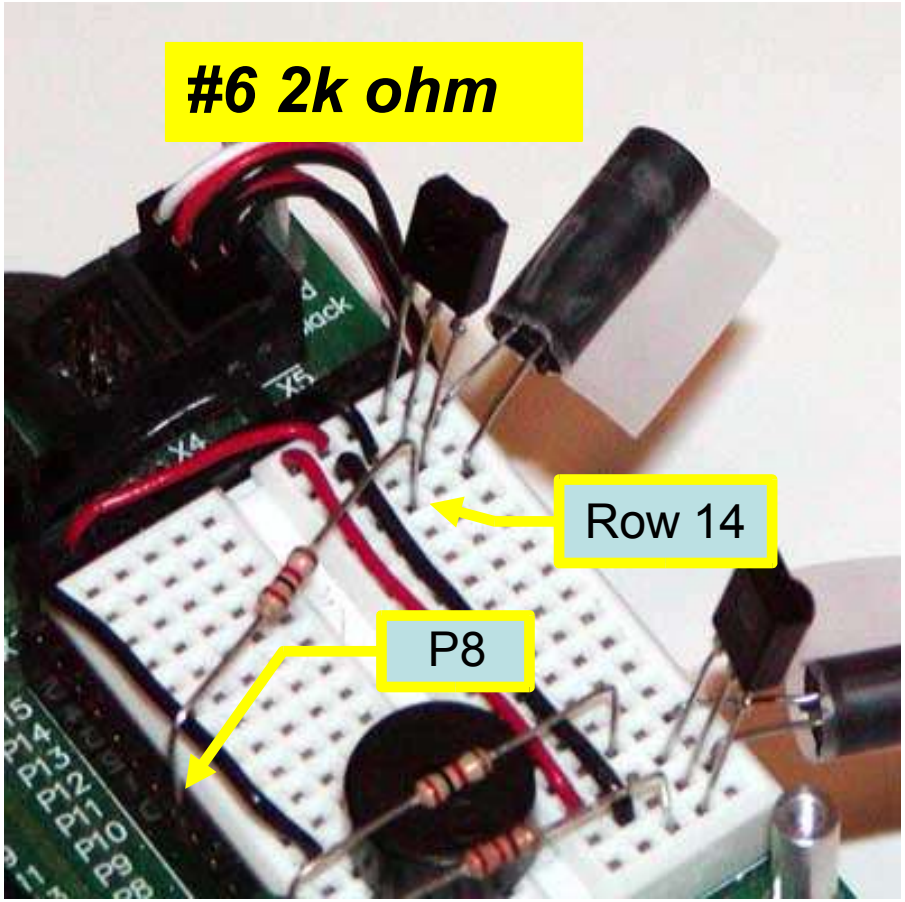
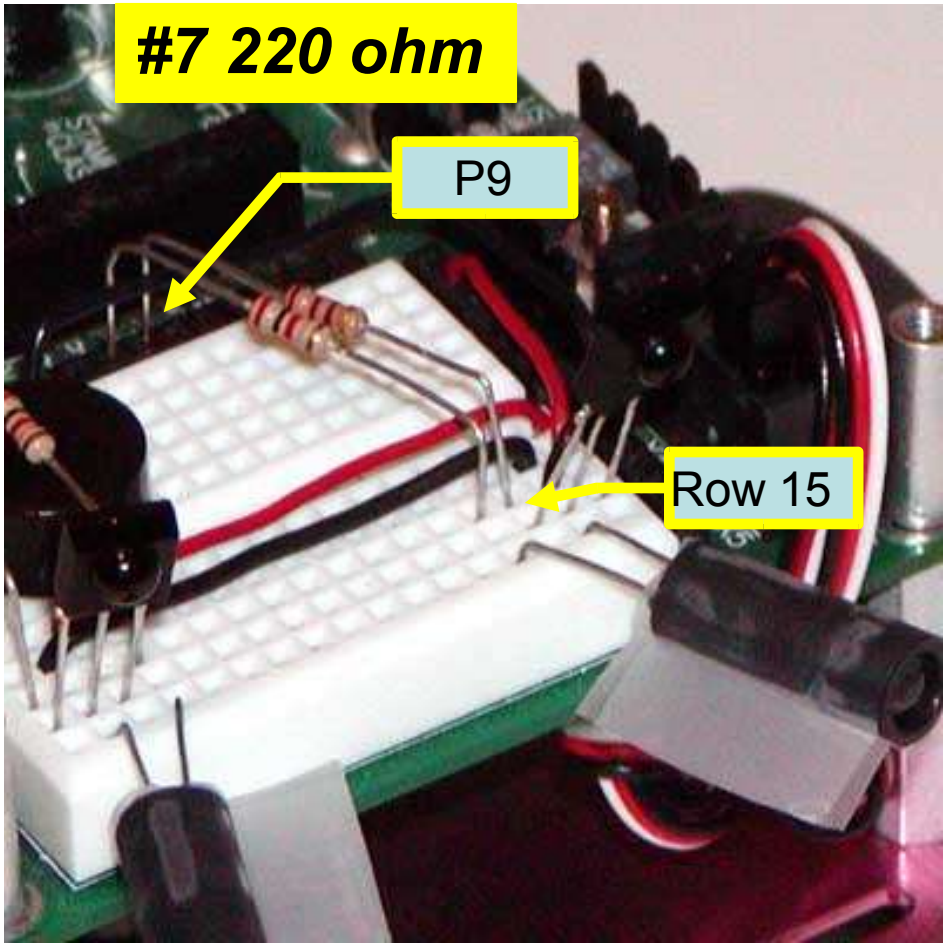
P8 P7 P6 P5 P4 P3 P2 P1 P0
X2


#6 2k ohm
Row 14
P8


#7 220 ohm
P9
Row 15

Now that the wiring is all done:

Check to see if the IR sensors are working by loading program:
‘DisplayBothDistances.bs2’

Andy suggests that you stand the Robotics book up in front of the Boe-Bot.
Put the book about an inch in front of the Boe-Bot and the program should indicate that it is seeing something.

If the sensors on both the right and left are seeing the book then you are ready to load the program:
‘FollowingBoeBot.bs2’

I hope that this helps. Let me know if you are have any trouble.