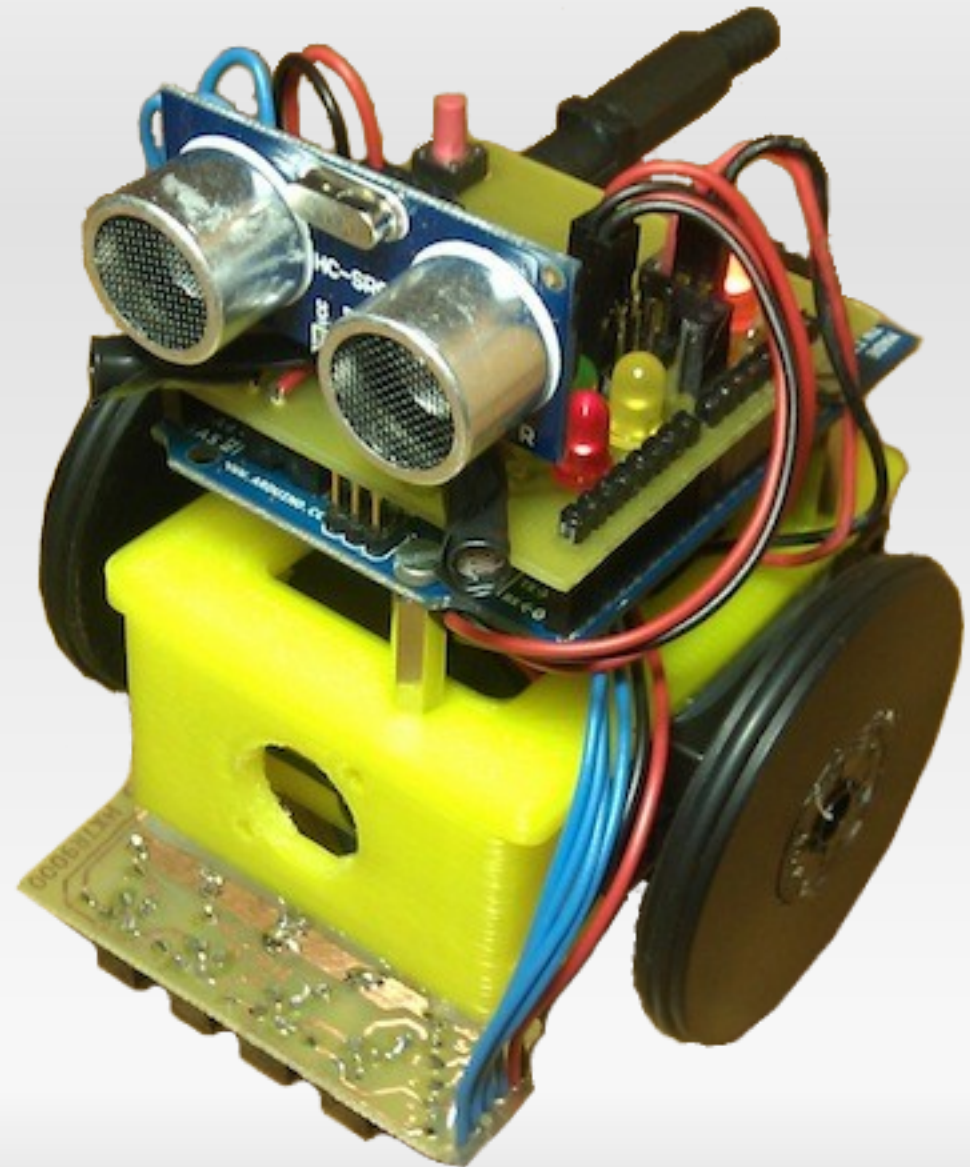


Lesson 4 – Using the line sensor

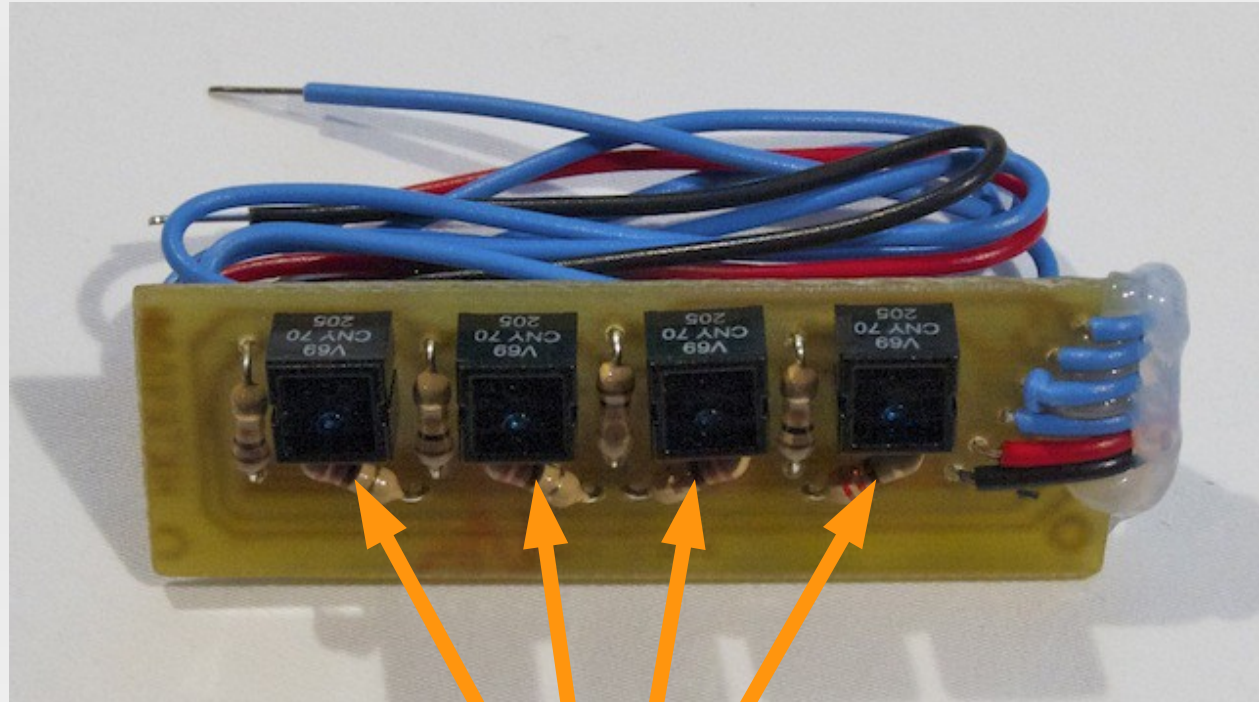
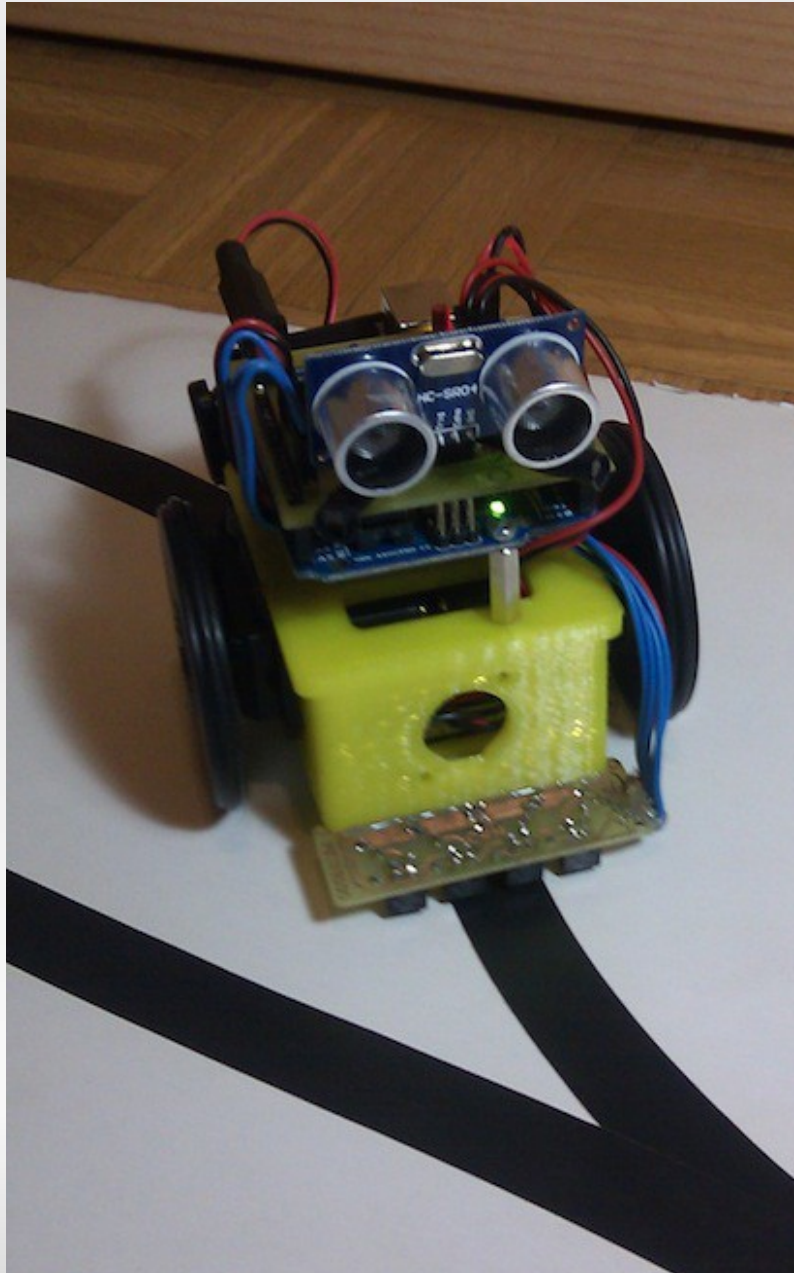
ArduSkyBot 2012 Summer Workshop

Today you will learn:

- What is the **line sensor** and how it works.
- How to **assemble and test** the line sensor.
- **Make the ArduSkyBot follow a line!**



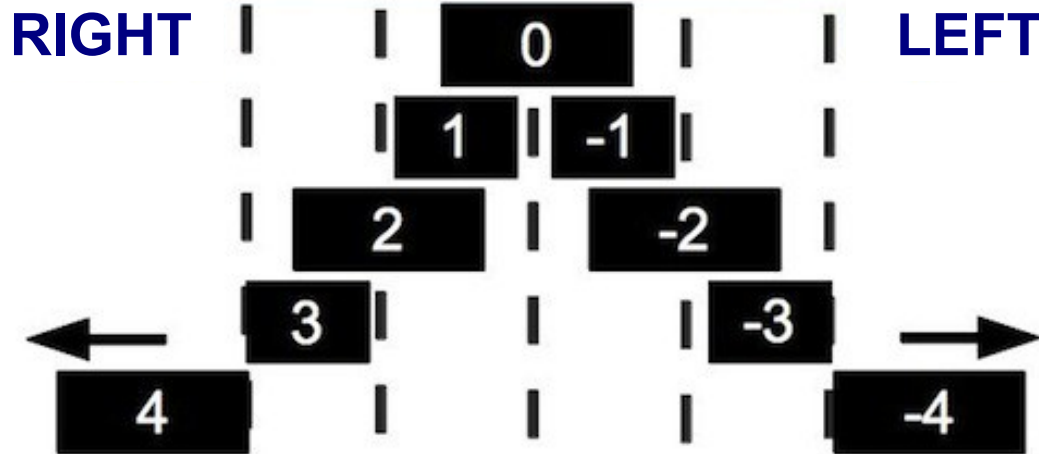
What is the line sensor?



CNY70 sensors

The software reads "1" if a CNY70 sensor reads white, and "0" when it reads black

How it works?

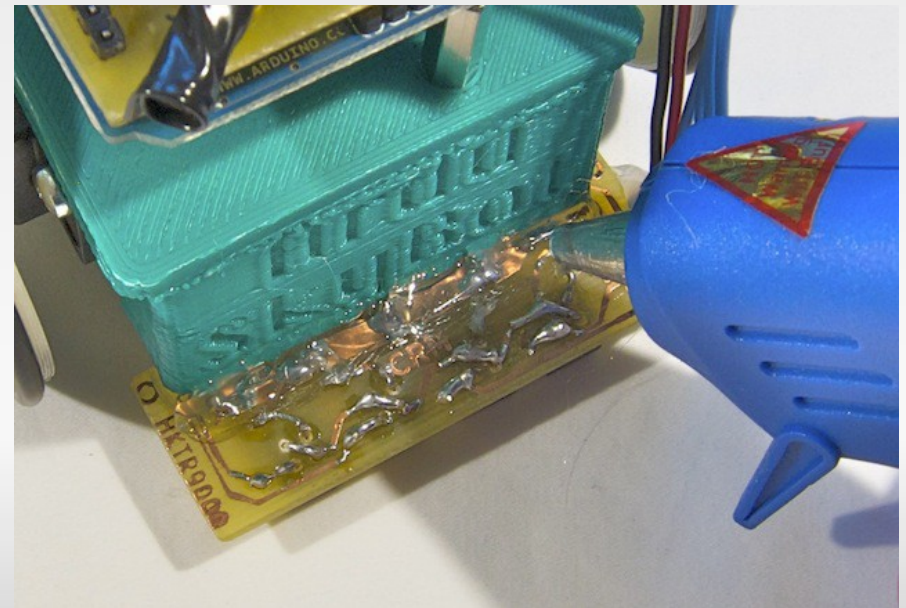
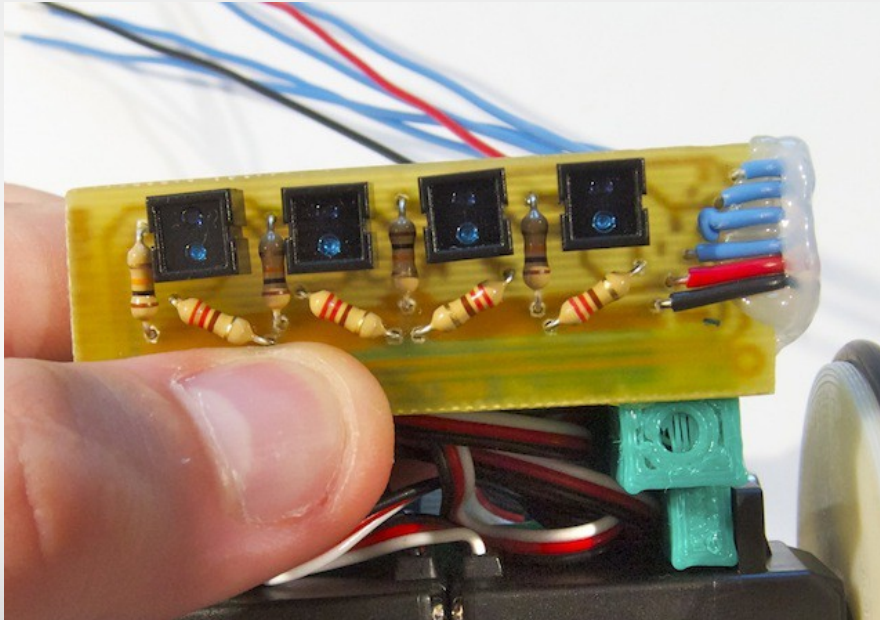
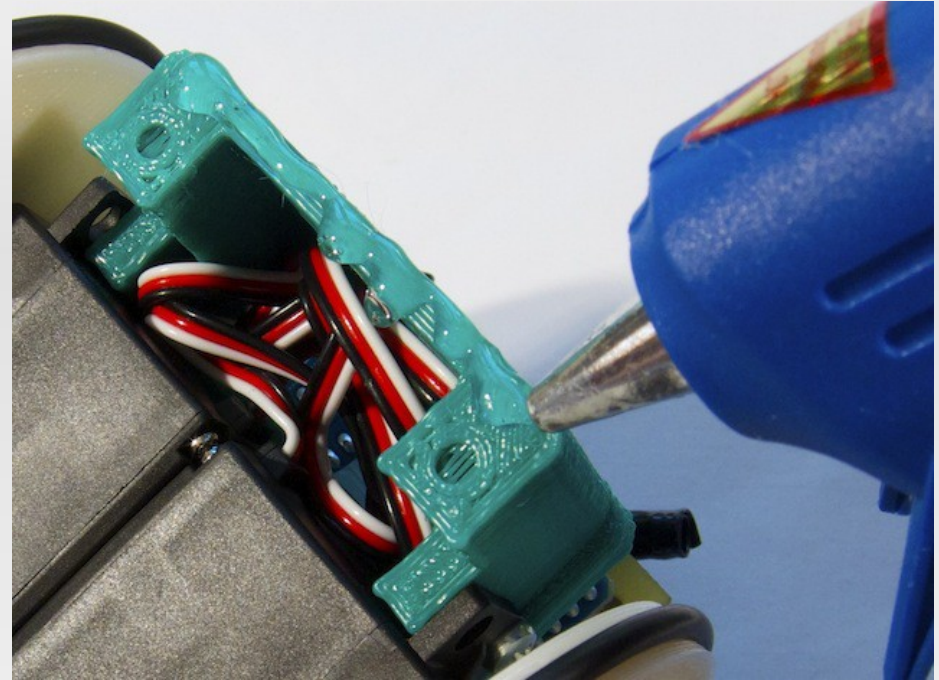
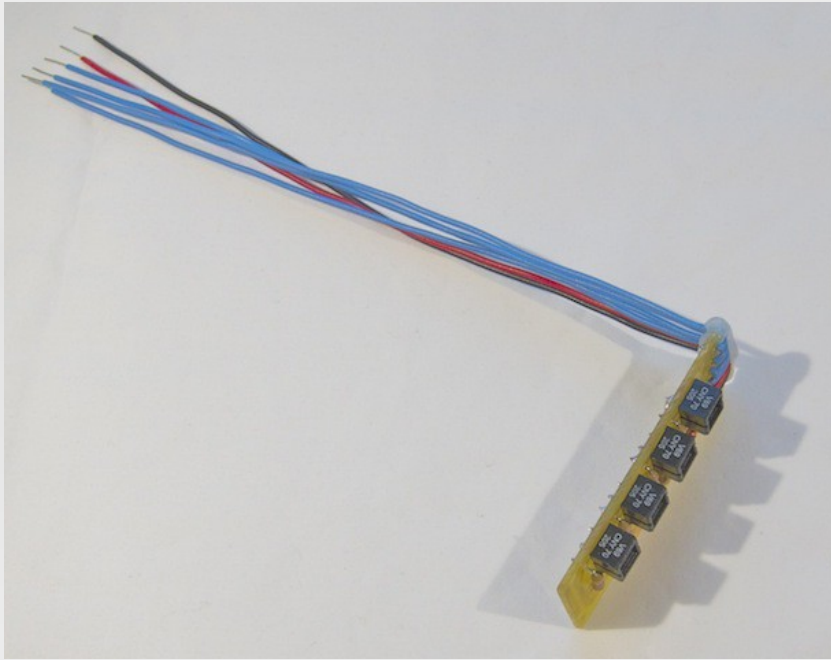


With four sensors, we can know the position of the black line in the floor.

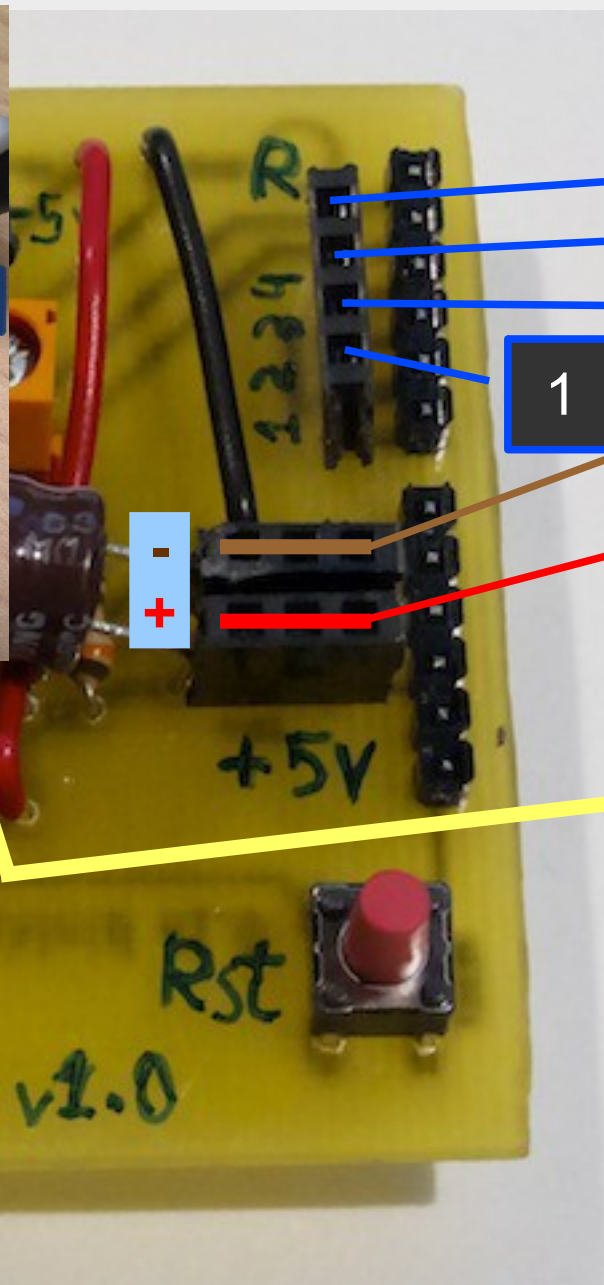
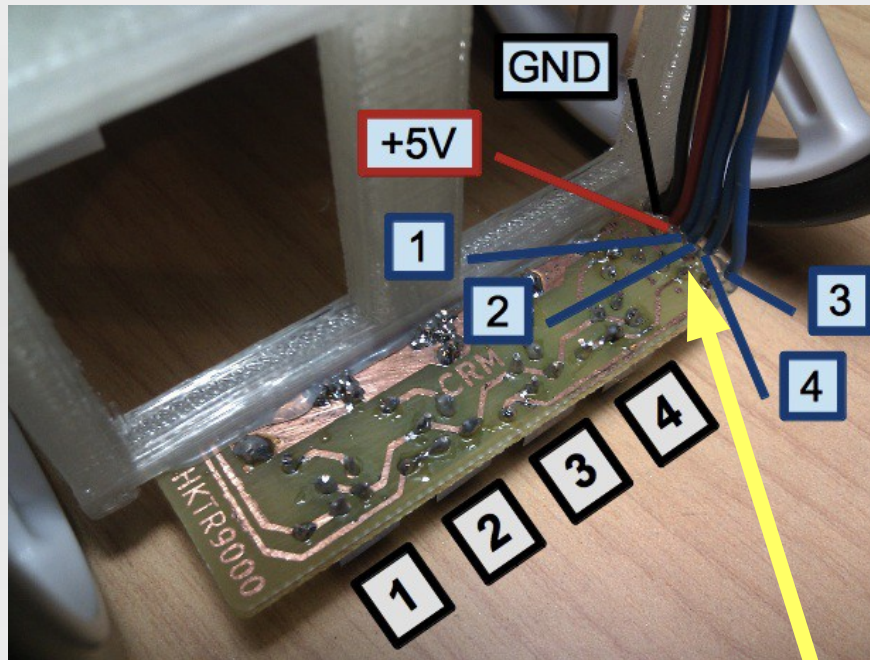
The `read_line()` function returns a number that indicates the position of the line.

We can use this number to drive our robot with the `robot_heading()` function!

Assembly of the line sensor



Printshield connections



Line sensor wires:

4

3

2

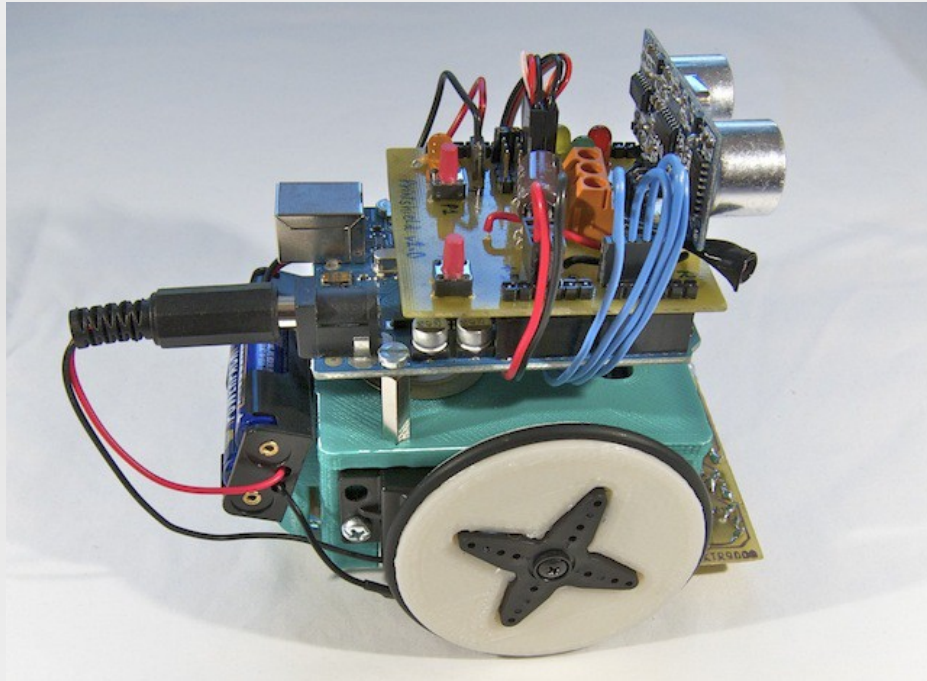
1

GND

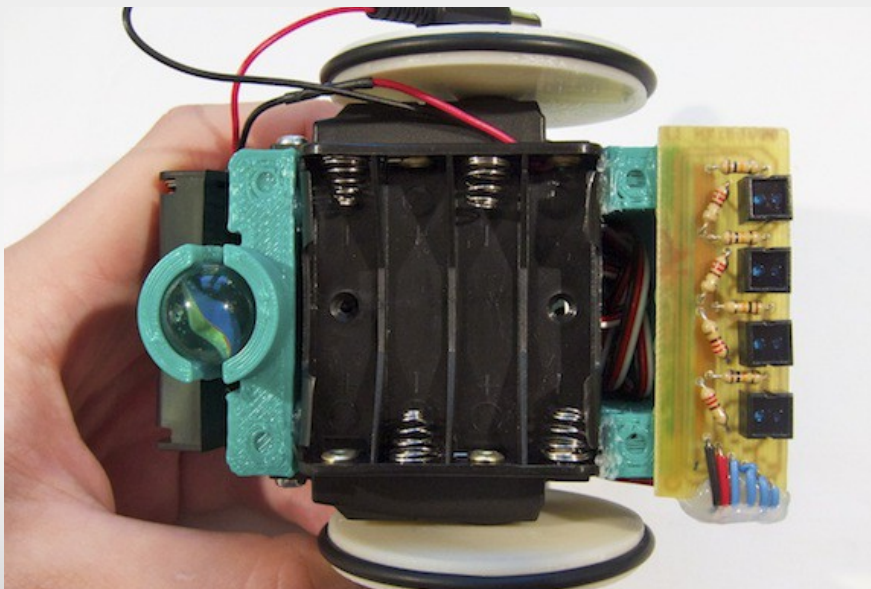
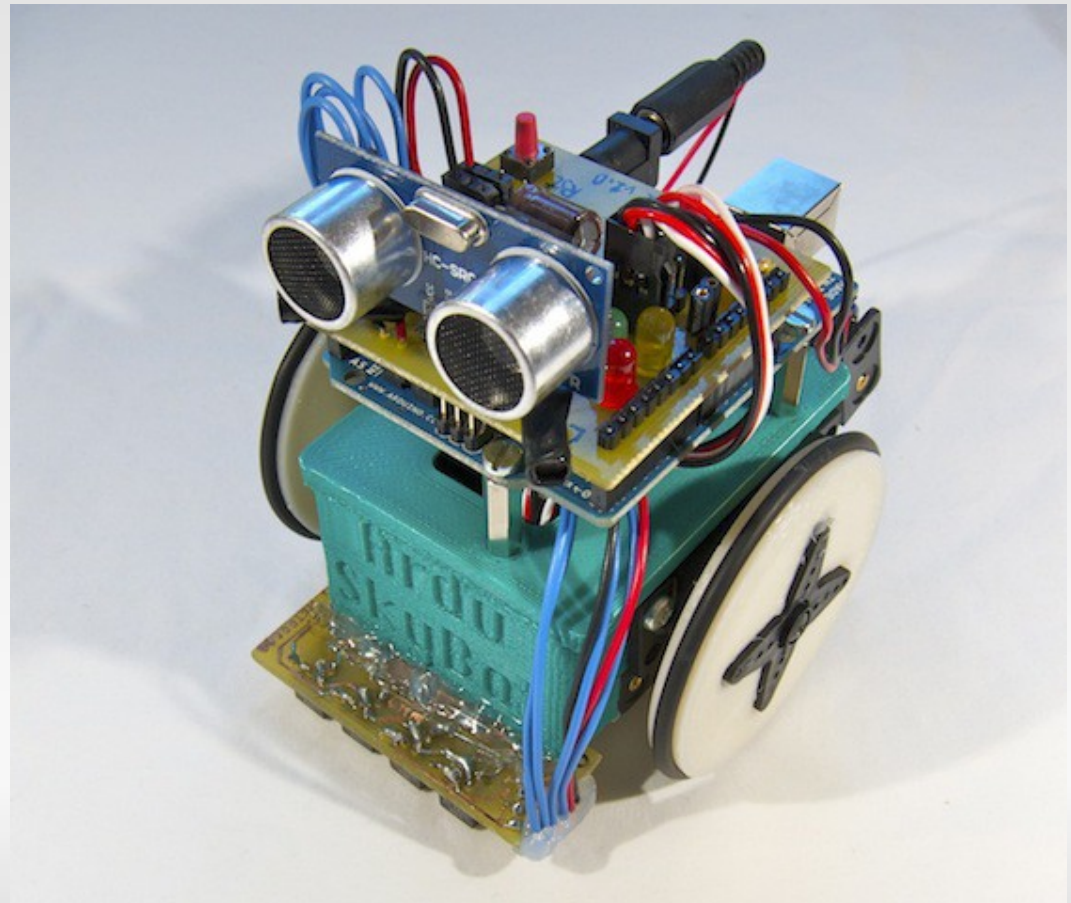
+5V

Make sure to connect the wires in the proper order!

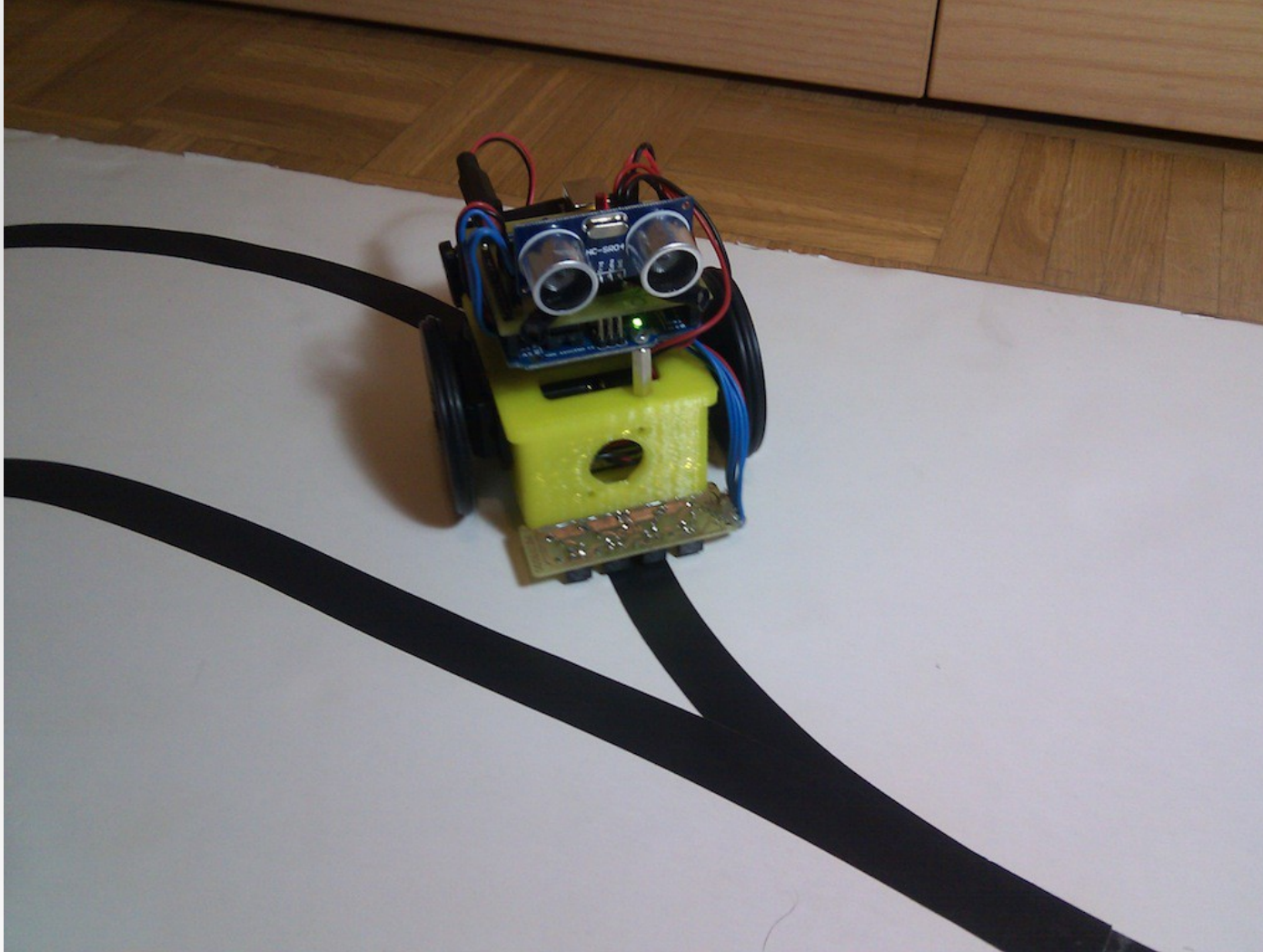
You have finished the ArduSkyBot!



*Try to place the wires properly
so the robot is compact*



Programming time!

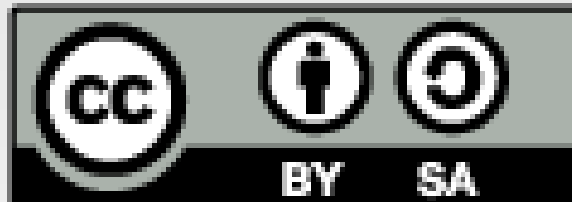


Download the testing and example code from
<http://www.carlossgs.es/2012-summer-workshop>

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