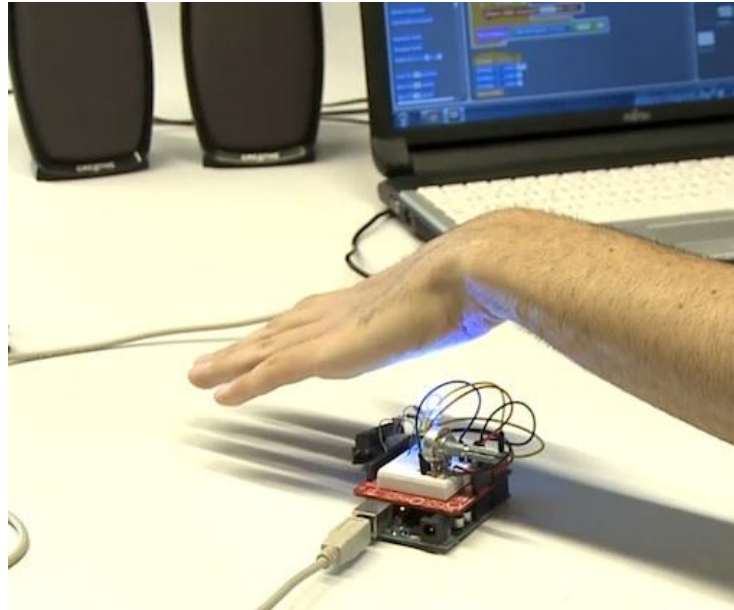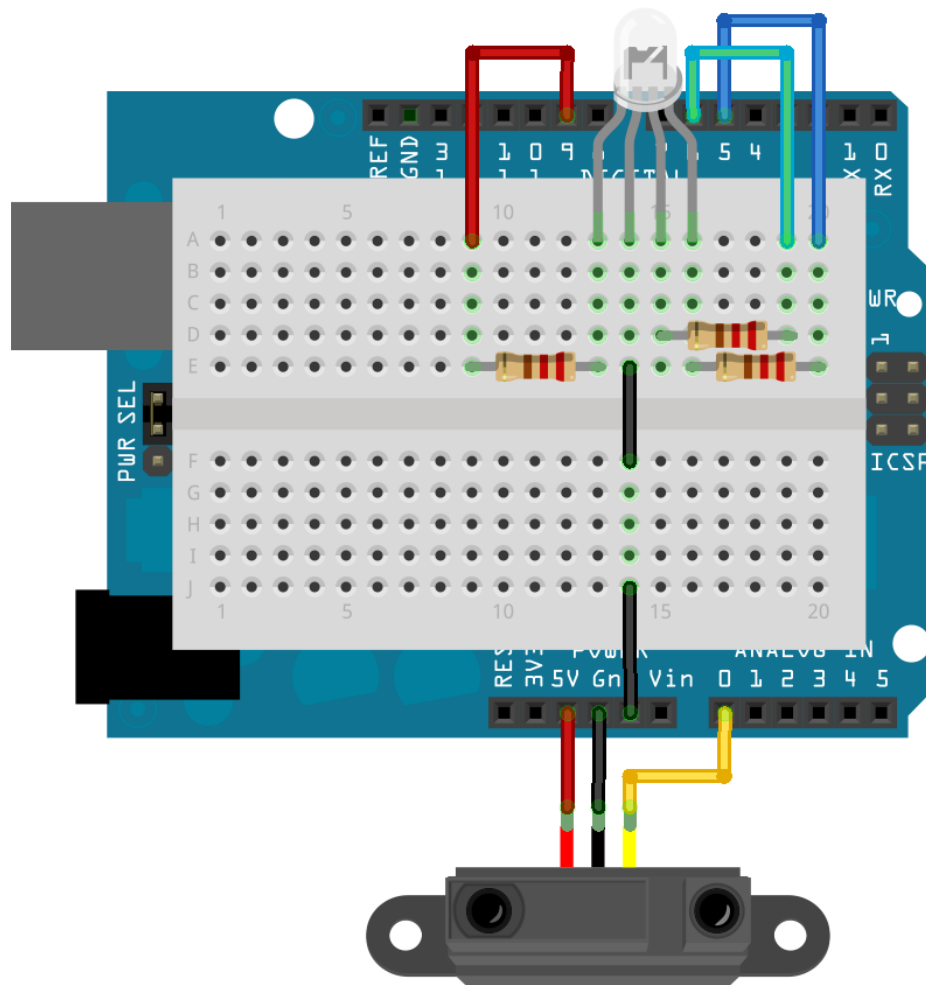## >> Sample 1 - Musical instrument with S4A Introduction

- Making a light-powered theremin-like musical instrument, with an infrared sensor and a RGB LED with Scratch 4 Arduino

- Taking advantage of Scratch's sound blocks

- http://www.youtube.com/watch?v=RJAgSUIf12U

>>Sample 1 - Musical instrument with S4A Schematics

Made with Fritzing.org

>>Sample 1 - Musical instrument with S4A
Code tips and questions

- To select an instrument: `set instrument to 1`

- To play a note: `play note 60 for 0.5 beats`

- To store the sensor value into a variable (in order to use it several times without changing its value):

  `set sensorValue to value of sensor Analog0`

- To transform the infrared sensor value into a number note between 48 and 72, and store it into a variable:

  `set noteNumber to sensorValue mod 24 + 48`

- The same method can be used to turn on every color of the RGB LED depending of the value of **sensorValue:**
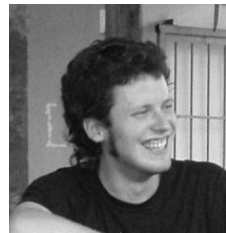
  `analog 5 value sensorValue mod 255`

- **Question:** how to stop playing (and turn the led off) when the sensor does not detect anything?

Thank you

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