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
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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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