

Foilman Dancing & Singing Glove

Video link: <http://www.tecoed.co.uk/wearable-tech.html>

Resources Required:

- 1 cotton glove
- normal kitchen foil
- "cobbler"/jumper jerky (from mod my pi)
- Scratch 5 GPIO

Additional:

Music and images for required theme
Scratch supports mp3 and jpeg images

Objective:

To create an interactive glove that controls a character in scratch
Use the GPIO pins to control actions in Scratch
Use If / If else to control actions

Making the glove:

Connect your jumpers to the GPIO pins.

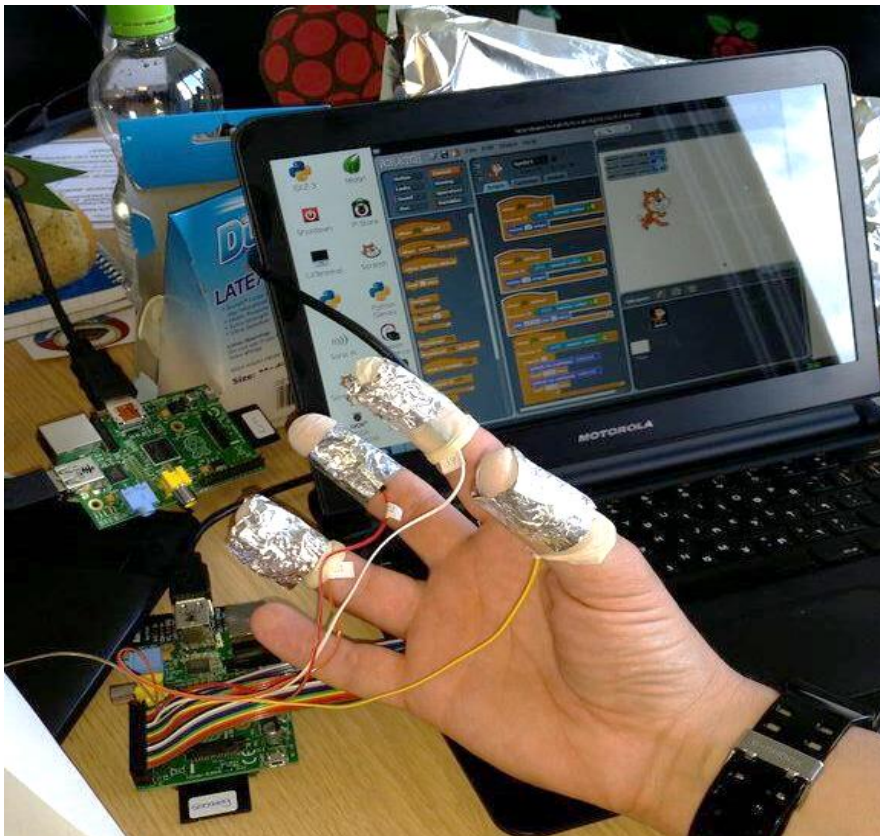
It is recommended that you use separate colours for each finger.

If using separate cables then you need the following pins

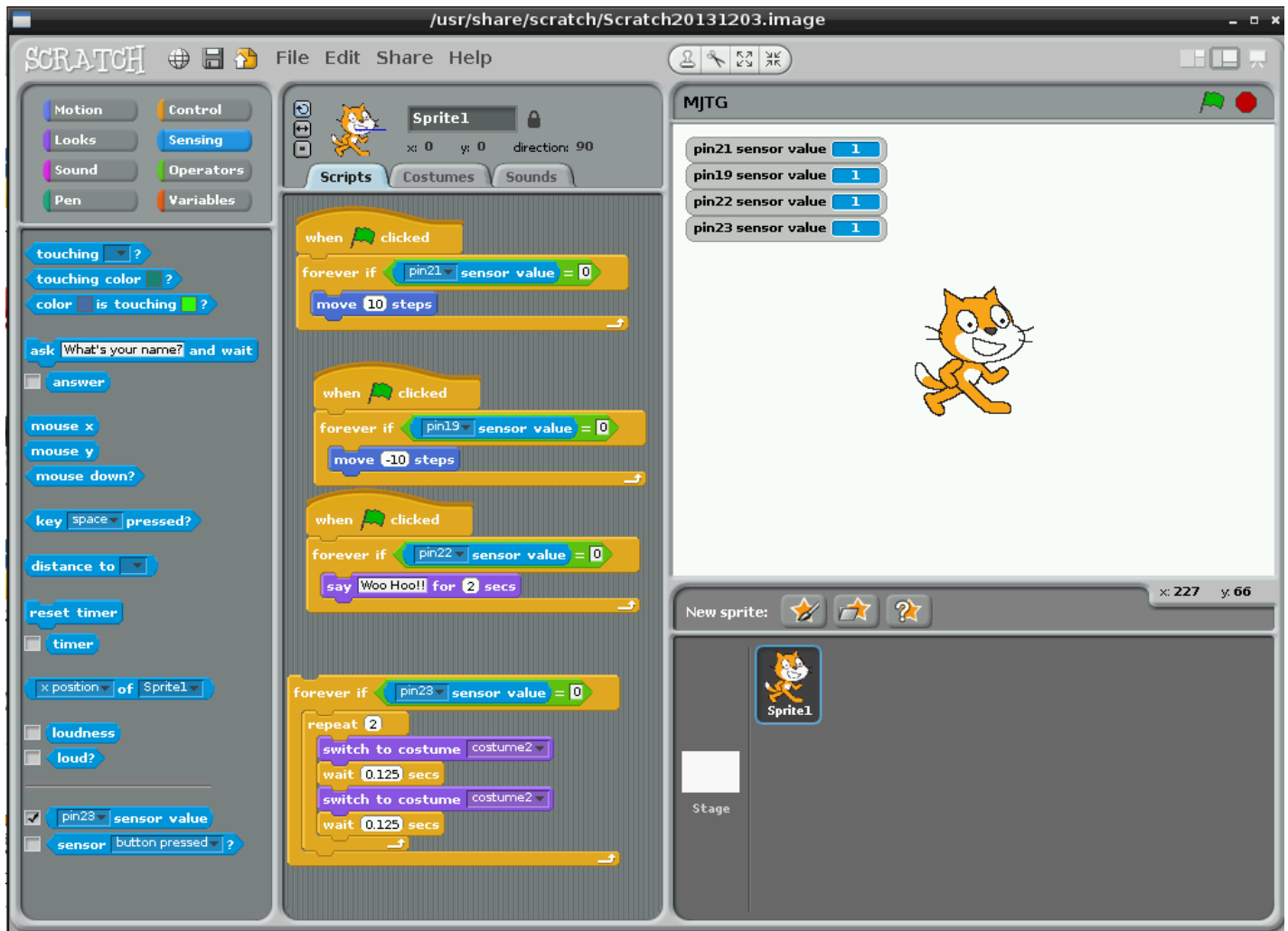
- Ground - Pin 14
- Index Finger - Pin 19
- Middle Finger - Pin 22
- Ring Finger - Pin 23
- Little Finger - Pin 21

In the video example the following actions are assigned to each finger:

- Index Finger - move forward
- Middle Finger - speak
- Ring Finger - dance
- Index Finger - move backwards



Set up Scratch to run the code when the green flag is set. Ensure that the GPIO scratch 5 version is used.



The Glove works by creating a circuit between thumb and the different fingers. The Ground Pin 14 is attached to the thumb. To increase connectivity add foil to the fingers of the glove.

Insert picture

Extension:

- 1) Use python instead of scratch to take pictures and send via email etc.
- 2) Add your own movements
- 3) Make a counting game
- 5) Send a Morse code message

Based on the original concept by @sooseeg
@dan_alured, @the_evil_pixie,