

**CRI projets**

CH : Qpluswegaleu

**Themes :**

Health and sanety

**Projects :** (web : Hackaday)

Pathfinder – Haptic Navigation (2014)

**Materials and costs (first project) :**

Glove : 42

* ATimega328P-AU : 3
* InvenSense MPU-6050 : 9.31
* TI DRV2603 Haptic Driver : 2
* MCP73871 LIPo Battery Charger (Microchip) :1.56
* MCP-1700 : 1
* US-100 (Y401) Ultrasonic Sensor :4
* L-RA Vibration Motor from IPhone 4 Verizon : 3
* LIPo Battery (1250mAh) : 10-23
* 16Mhz Crystal : 3

**New shop list :**

* 1 [Arduino Mini Pro 5v](http://www.sparkfun.com/products/9218), [FTDI 5v basic](http://www.sparkfun.com/products/9716) adapter to program the Arduino
* 2 [Parallax PING (ultrasonic sensors](http://www.parallax.com/tabid/768/ProductID/92/Default.aspx)) : 30,00 (euros)

<https://www.parallax.com/product/28015>

* 2 small hobby servo like a [Turnigy TG9](http://www.hobbyking.com/hobbyking/store/__9549__Turnigy_TG9e_9g_1_5kg_0_10sec_Eco_Micro_Servo.html) or[Hextronix HXT900](http://www.hobbyking.com/hobbyking/store/__662__HXT900_9g_1_6kg_12sec_Micro_Servo.html)
* 1 9v battery connector : 2.80 (dollars)
* 1 slide switch
* 1 Buzzer : 3.60 (euros) :

<http://letmeknow.fr/shop/arduino/58-buzzer-6913282115024.html>

* Elegoo 3 En 1 120pcs 20cm Multicolores Dupont fil Dupont Wire Jumper Câble Mâle-Mâle /Femelle-Femelle/Femelle-Mâle : 8,00 (euros)

<https://www.amazon.fr/Elegoo-Multicolores-M%C3%A2le-M%C3%A2le-Femelle-Femelle-Femelle-M%C3%A2le/dp/B01JD5WCG2/ref=sr_1_1?ie=UTF8&qid=1489141736&sr=8-1&keywords=jumper+cable+femelle>

**Create Bip with arduino card :**

<http://letmeknow.fr/blog/2013/11/10/tuto-utiliser-un-buzzer/>

<https://forum.arduino.cc/index.php?topic=106094.0>

**Comment utiliser ultrasonic sensor :**

<https://itechnofrance.wordpress.com/2013/03/12/utilisation-du-module-ultrason-hc-sr04-avec-larduino/>

**Pour retrouver le projet :**

<http://webcache.googleusercontent.com/search?q=cache:http://grathio.com/2011/08/meet-the-tacit-project-its-sonar-for-the-blind/&gws_rd=cr&ei=WL7wWJfsGYrTgAbPs4zICw>

**Design idea :**

Normal glove with technological part in the middle of the hand, covered by a piece of fabric.

A large hole in the right side to reach the slide switch

**Requirements :**

* Confortable design (size, mini Arduino card)
* Protection (casing to protect from the cables)
* Simple design (easy to understand for blind people)