Handy Scratch
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1/ What you need

There are some basic material needed to create*HandyScratch*.
- Arduino thingy with software thingamajig
- Pure Data (free download here!)
- Audacity (free download here!)
- A glove with some hiphop attitude
- Conductive material such as copper threads/tape
- Wires and cables
- Music (no free download, buy it!)
- Resistor
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2/ Create the glove

Since you scratch with your hand and foremost by rubbing your fingertips against a records it would be a good choice to have a conductive area at the top of the index finger with a copper thread to the Arduino.
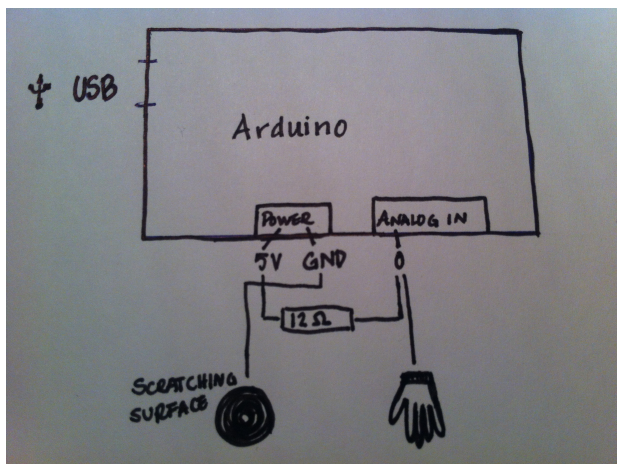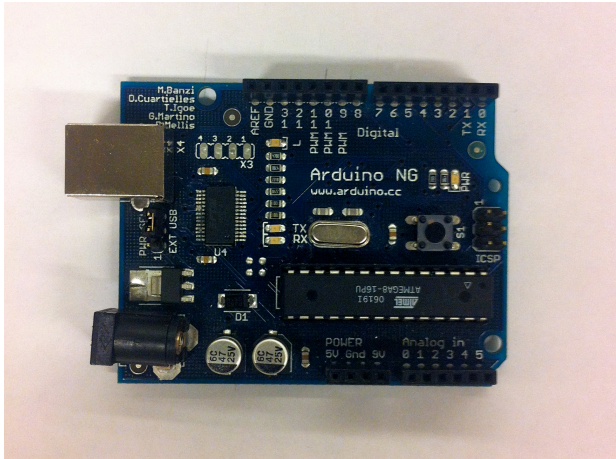

3/ Load Arduino

Load the following code to your Arduino hardware. Make sure to select the USB port at the Arduino settings.

```
void setup() {
Serial.begin(9600);
}

void loop() {
int sensorValue = analogRead(A0);
int serialValue = sensorValue / 4;
Serial.write(serialValue);
}
```

4/ Schematics

The connection plug from the glove should go to the Analogue 0 input (A0). You should also put a 12Ω resistor from A0 to the 5V input. The connection plug from the scratching surface should be connected to the ground. From your Arduino make sure to connect it with a wire to the USB port of your computer.

5/ Record a break

Go in to Audacity and record a break. You can say stuff such as »*Yo!*«, imitate the late great James Brown with a »*Git down!*« or even get Poppins on us with a »*Supercalifragilisticexpialidocious*«. Your imagination and vocal chords are the only limits. Save the break as .WAV file and in a folder titled WAV in your HandyScratch folder. Make sure to remember the name. You'll need it in the next step.

6/ Set up Pure Data

Download the Pure Data file titled[HandyScratch.pd](HandyScratch.pd) and put it in your HandyScratch folder. Open it up. Make sure to change the name of your break to the same one you saved in the previous step. Also make sure that Pure Data is set to Compute Audio on the main screen (otherwise you won't get any sound).

7/ Start PD software

Hit CMD + E or CTRL + E (depending on OS) and then click on the rhythm track and start to make the background music load. Then click on break to make it play.

8/ Git fonky!

Take a B-boy stance and rip the living hell out of your break by rupping your HandyScratch on the conductive area (the sad ideological remnants of what used to be a vinyl).