

# Lesson 4: Introduction to Arduino

## What is it?

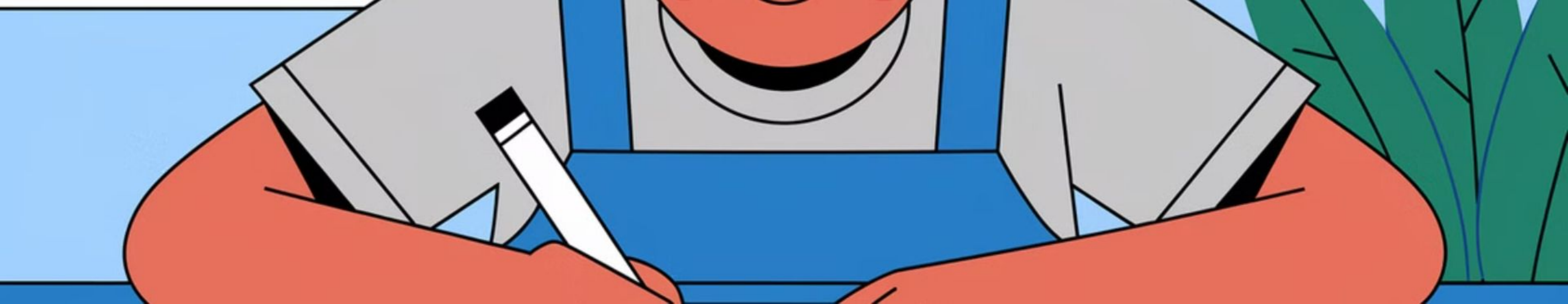
An open-source electronics development platform.

## Why use it?

Easy to program and interface with sensors.

## Lesson Overview

Setting up the Arduino environment.



# Hands-on: Creating Simple Sensors



## Drawing

Create patterns with conductive ink.



## Testing

Measure touch sensitivity with a multimeter.



## Connecting

Integrate with electronic components.

# Exploring Gesture Recognition

1

## Taps

Single touch events for simple actions.

2

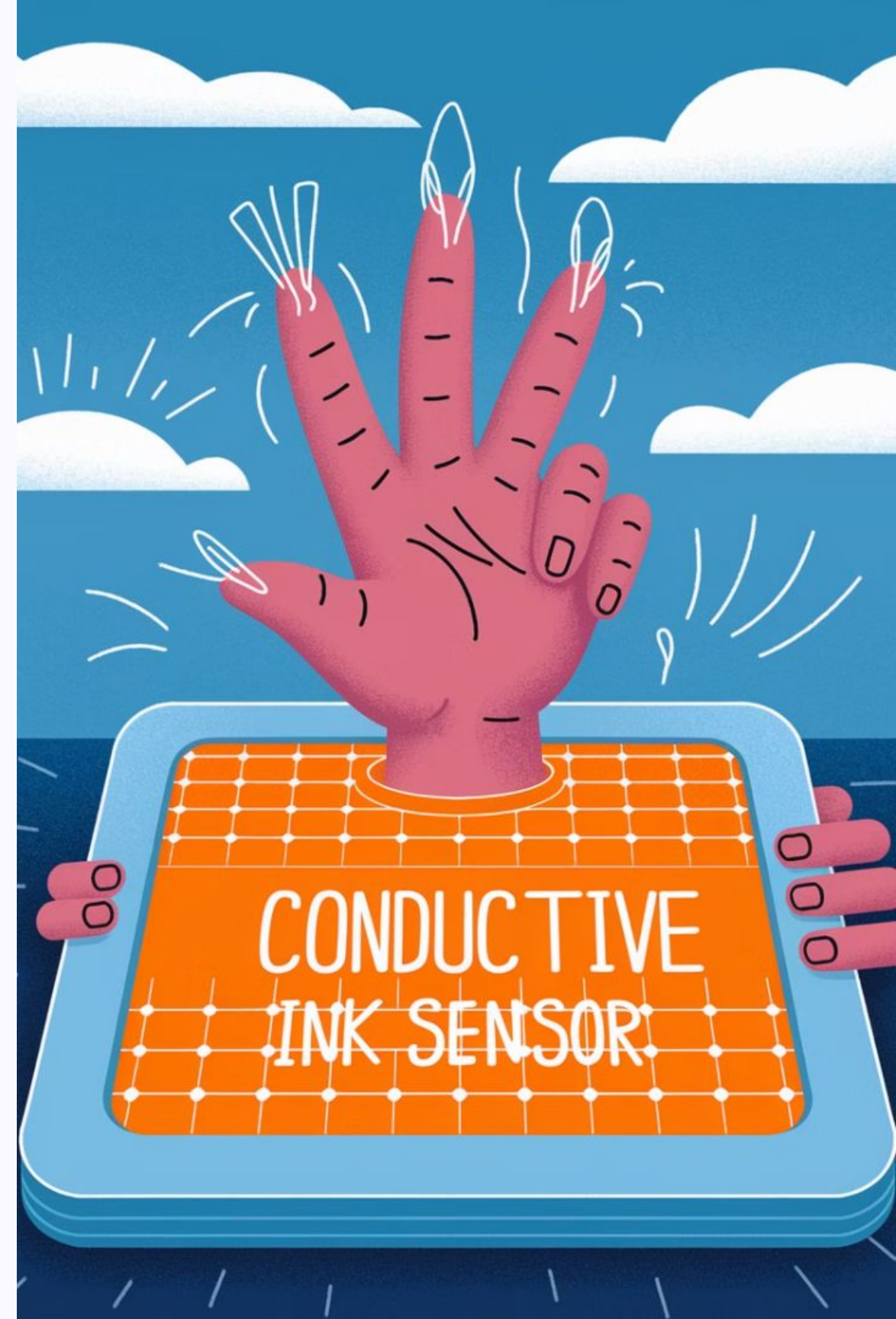
## Slides

Continuous motion for parameter control.

3

## Proximity

Detecting hand distance for effects.





# Concept Development

1

Brainstorming

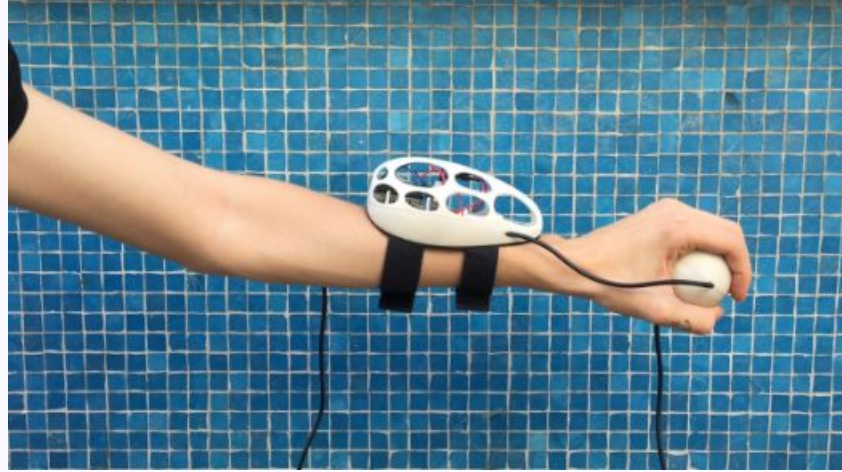
Generate as many ideas as possible.

2

Sketching


Visualize your ideas on paper.









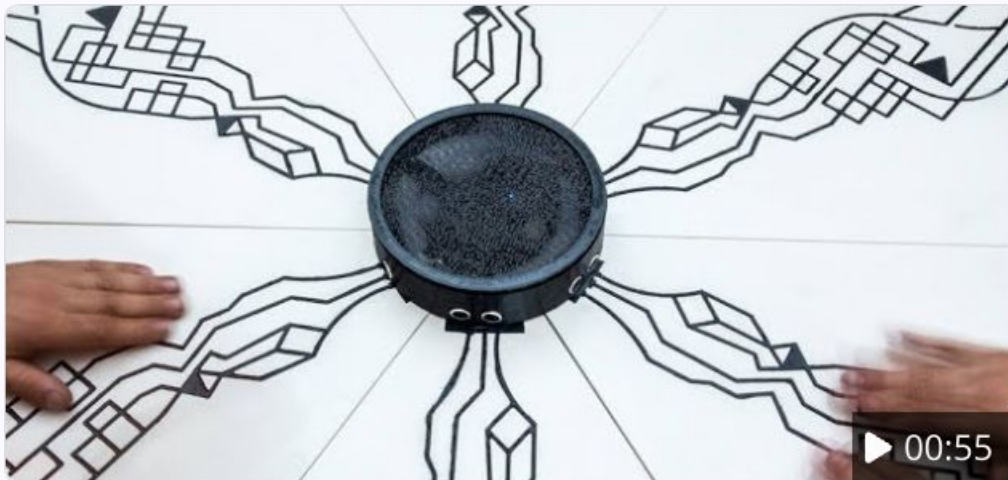
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### Electric Paint Lamp Kit

Find out more about the Electric Paint Lamp Kit here:

<https://www.bareconductive.com/collections/electric-paint-lamp-kit> Transform any...



 YouTube




### **Build Your Own Interactive Sound Table with Electric Pai...**

Find out more about Electric Paint here:

<https://www.bareconductive.com/collections/electric-paint> TACTO is an interactive...



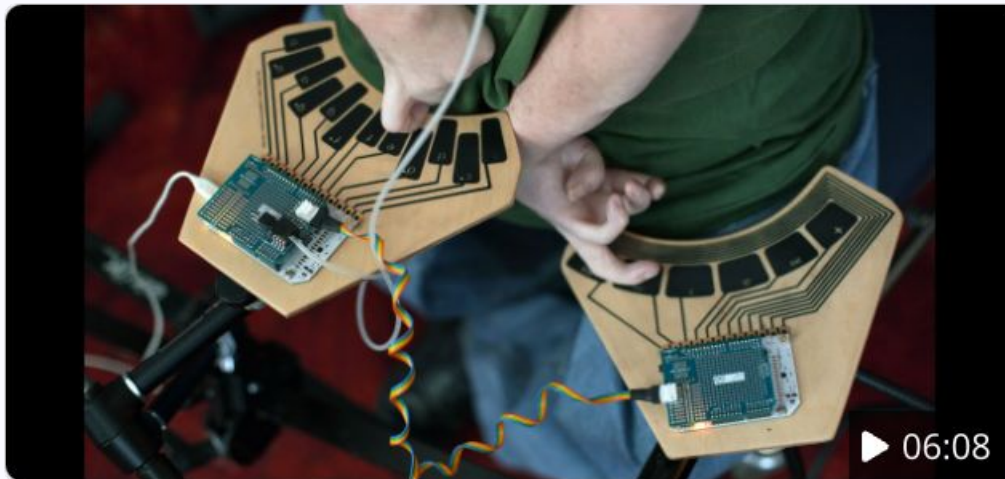
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### **Interactive media wall (touch sensor, conductive ink, projection map...**

[PLAYDODO] Music Playing Wall : Projection Mapping, Conductive Ink, Interacitve Art  
Music Playing Wall, a fun Interactive touch wall painted with instruments recognize...





 YouTube



### **Touch Chord - A Touch Sensitive Breath Controlled Instrument**

Read the full story: <http://bit.ly/1Gg7gQ7> Designer Musician Vahakn Matossian from Human Instruments teams up with Bare Conductive to develop a new musical...

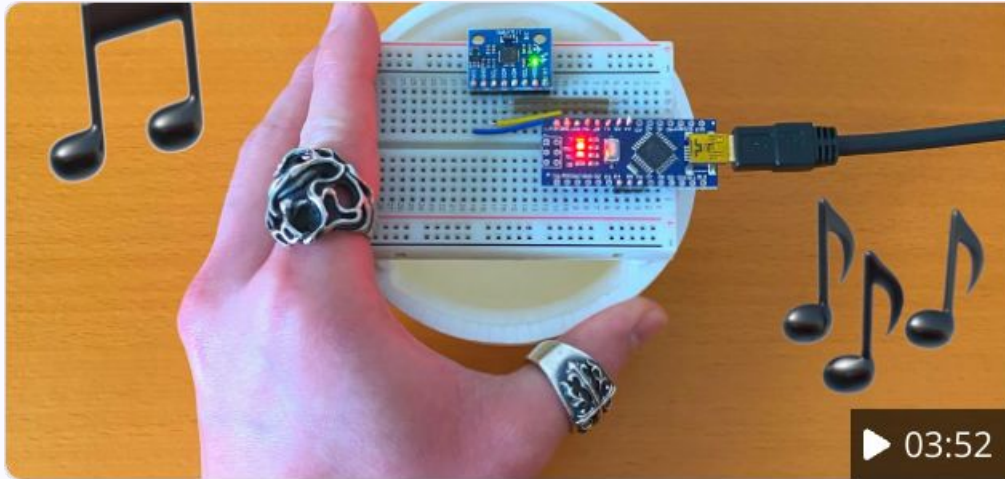


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### **I Built a MIDI THEREMIN! Theremidi - A DIY Arduino MIDI Controller**

→ Download the files: <https://go.musicnerd.com/files-download> → Making Music with Arduino: <https://go.musicnerd.com/nerd-musician-pro/> → Curso Fazendo...



▶ 03:52

 YouTube



### **Accelerometer Music Controller (Arduino Tutorial)**

Let's use accelerometer to control sounds in Pure Data or Max/MSP!! --- To Buy -  
Arduino Nano <https://www.amazon.com/ELEGOO-Arduino-ATmega328P-Without-...>