

Circuit Bending Music Workshop:

Overall Goals:

Introducing the Art, Technique, and Applications of Circuit Bending. Students will enjoy an entertaining history as well as learn and apply basics such as what electronic parts do, the tools of the trade, and a number of specific bends that can be applied to almost any item. These will be combined to bring the class on a journey to unearth alien sounds and life forms in everyday common toys and items.

Final Outcome:

Students will learn how to circuit bend as well as basic soldering and electronic knowledge and bend (and keep!) their very own Atari Punk Console noise maker.

Class One = 2 Hours:

Objectives:

Learn the history and an overview of Circuit Bending as well as its tools and tricks. Apply this knowledge to complete your own individual project.

Schedule:

--Introduction/The Alien World of Sound/Why Bend? (15 minutes)

What is Circuit Bending and where did it come from? Demo and hands on examples of unleashing your hidden Noise.

- What is a Circuit? How do we Bend it? (15 minutes)

Demo of a sound circuit using a modular synthesizer. Examples of how we interrupt the flow and what you can do with it.

-- ICU (or Parts, they aren't just for Frankenstein anymore!)- (15 minutes)

Learn the power and value of Resistance! Potentiometers, Switches, Integrated Circuits, Photo Cells, and how they can be used and abused for your nefarious purposes.

- Our friend the PCB - (15 minutes)

Understanding the Road Map of a circuit and where we can detour and visit other locations. Power (both Positive and Negative). What is DIY and how can you get some? Hands on interactive demonstrations and practice of your first bend.

- Musical Interlude and Catch Up – (10 Minutes)

Question and answers on material covered so far. Poke the Synthesizer. Stretch and dance a bit while we prepare to operate.

- Meet Mr. Soldering Iron (and his friends) (15 minutes)

Learn basic and safe techniques for tearing things apart and putting them back together in the world of circuits. Practice and have fun with soldering irons and electronic parts.

- Punk Out!! (25 minutes)

Receive your very own Atari Punk Console Noise machine. Finish it as you'd like and practice your new found bending skills. Make a beautiful noise together.

- Where do we go from here? (10 minutes)

Wrap up overview, questions, and suggestions for further fun.

A Personal Note from the Instructor:

This Class is a tour de force covering a lot of topics and tools and open to everyone of any age or experience level. There will be video, live music and sound, slides, and LOTS of fun.

You do *not* need any prior knowledge of electronics. Some knowledge or practice with soldering is helpful but not necessary. You won't learn to be an expert in these two hours but you will learn what Circuit Bending is all about and build your future in Bending. We will cover a little bit of a lot of things and in the end you'll have the tools you need to keep going.

The Hacktory offers ongoing meet ups and workshops as well as free "Hack" nights where you can practice your newfound craft. Please see us and ask away, we love this stuff and hope you do too. If you have any questions or concerns if this class is for you do not hesitate to contact me at Info@DAEDSound.com.

Below I have listed some materials and sites for further study but you can also pick these up and review them before the class.

See you on March 1st! - David Talento

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Additional Reading, Sites, and Materials:

1. Circuit-Bending: Build Your Own Alien Instruments by Reed Ghazala
2. Handmade Electronic Music: The Art of Hardware Hacking by Nicolas Collins
3. Make: Electronics (Learning by Discovery) by Charles Platt
4. <http://www.anti-theory.com/> - Reed Ghazala's Web Site
5. <http://www.synthrotek.com/> - DIY and Audio Electronics Kits
6. <http://www.thehacktory.org/> - Your Local Philly place for getting Technology and Art to dance together.