

# BoCon: Circuit Bending

November, 10th, 2007

## Notes

### ***Circuit Bending***

- Shorting of an electronic device to cause it to function in a way other than was originally intended.
- A process of experimentation
- Crossing two wires
- Touching part of the circuit
- Adding a variable resistor, capacitor or other electronic device

### ***History***

- 1966: Invented by Reed Ghazala: Toy shorted out in desk
- 2003: Bent Festival begins
- CDs:
  - 2006: Noise and Toys Volume 1
  - 2006: The Blown Circuit Comp - A Tribute to Circuit Bending
  - 2007: DO NOT BEND

### ***What Can Be Bent?***

- Electronic toys
- Synthesizers
- AM/FM radios
- Computers
- Video games consoles
- Video cameras
- Most things electronic

### ***Popular Bends***

- Casio keyboards
- Speak & Spell / Speak & Math
- Furbies

### ***How to Bend***

- Disassemble the device to gain access to the circuit board.
- Be careful to save parts
- Cross connections points with a piece of wire or test leads.
- Make notes as you go.
- Try adding a variable resistor between two connection points.
- Solder connections.
- Add switches knobs and audio jack.
- Paint or decorate
- Reassemble

### ***Warnings***

- Never plug it in! Use low voltage devices only.
- Can be very annoying to those around you.
- Don't bend anything you cannot afford to lose.

## **Circuit Bending Links**

- Wikipedia: Circuit Bending ([http://en.wikipedia.org/wiki/Circuit\\_bending](http://en.wikipedia.org/wiki/Circuit_bending))
- Reed Ghazaal's - Art of Circuit Bending (<http://www.anti-theory.com/soundart/circuitbend/>)
- Get Lo-Fi (<http://www.getlofi.com/>)
- Circuit Benders (<http://www.circuitbenders.co.uk/soundz.html>)
- Odd Music: Circuit Bending (<http://www.oddmusic.com/illogic/>)
- Absurdity: Circuit Bending Documentaries (<http://absurdity.biz/>)
- BoCon.org: (<http://bocon.org/>)