

# ***Build Your Own Overdrive Stompbox Pedal.***

We all know the sound that has defined rock music... distortion, fuzz, overdrive. It started in the 60s using transistors to replicate the sound of earlier guitarists who would purposefully overdrive their tube amps. In this course, students will build an overdrive (stompbox) pedal using transistors and other components soldered onto a circuit board. They will also design their own enclosure.

## ***How much is the course?***

Although the course is free, there is a \$25 materials fee per student. Payable to NJ Guitar & Music Society.

## ***What is included in the course?***

All tools and materials are included. You only need to supply your own instrument and 2 cables.

## ***Are there any prerequisites?***

Students should be comfortable with basic hands-on tools, as they will be learning to use a soldering iron. The minimum age is 14.

## ***Is there an enrollment limit?***

The course has an enrollment capacity of 8 students and one teacher.

## ***How long is the course?***

The course is 4 hours. NJGMS will work with the teacher in determining a convenient date and time!

## ***Who is the instructor?***

The course is taught by Michael Lemma, founder of NJGMS and co-founder of Bergen Makerspace. He created Soundwave Audio Lab, a network of courses where kids build electro-musical devices. Michael has presented at the NJ Music Technology Expo and built hundreds of these devices, developing modifications to inspire the curiosity of music enthusiasts. This program was covered on Classroom Closeup TV.

## ***How do I enroll?***

Enrollment is made by the teacher for his/her class. Please contact us to discuss details

## ***What will the students learn?***

Students will learn basic circuitry, electrical components/hardware, safe use of a soldering iron, and common tools. They will learn how effects function, troubleshooting, and will develop a sense of accomplishment.

Intro, safety, and soldering basics (30 minutes)

Electrical components and tools (15)

Function and preparation of hardware (45)

Soldering the PCB and circuit design (45)

Preparing the enclosure (45)

Testing, troubleshooting, installation, and bring home your pedal (60)

*NJGMS provides participating teachers with a Professional Development certificate for this course.*

