Lecture 15

Today: projects
              catch up on lecture

Handouts: printed copy of today's lecture slides
              HW 5 solution
              revised draft write-up for lab exercise 4

Read:

References: the text
              TMS320C55x DSP Programmer's Guide (SPRU376A)

              Please keep the lab clean and organized.

              Last one out should close the lab door!!!!

The idea is to make decisions and act on them - to decide what is important to accomplish, to decide how something can best be accomplished, to find time to work at it and to get it done. – Karen Kakascik

What is an electret microphone?

The electret is a modified version of the classic capacitor (or condensor) microphone, which exploits changes in capacitance due to mechanical vibrations to produce voltage variations proportional to sound waves. Whereas the condensor MIC needs an applied (phantom) voltage, the electret has a built in charge, and the few volts needed are to power the built-in FET buffer, not to create an electric field.
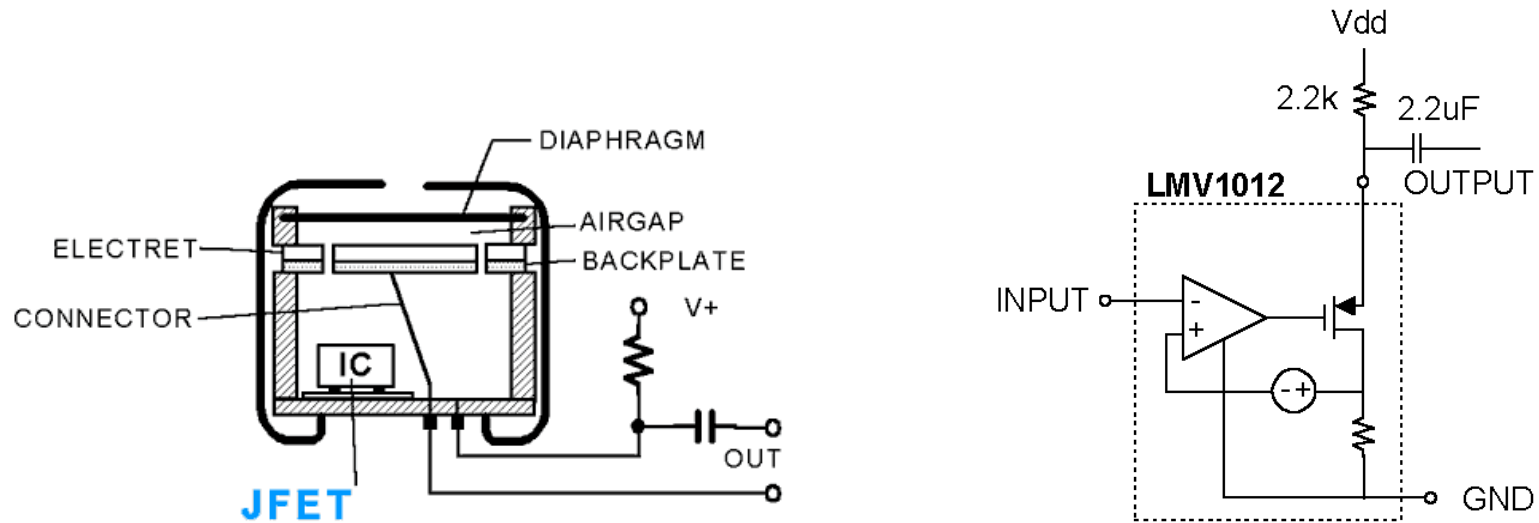
Creative Labs has given the following specs for the Sound Blaster microphone input in their web site:

- Input Type: Unbalanced Low Impedance

- Input Sensitivity: Approx. -20dBV (100mV or 0.1Volt)

- Input Impedance: 600 to 1500. (Ohms)

- Input Connector: 3.5mm Miniplug (Stereo Jack)

- Input Wiring: Audio on Tip, Ground on Sleeve, 5Volts DC Bias on Ring
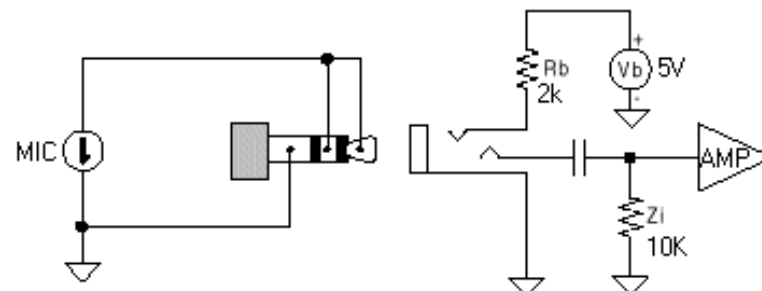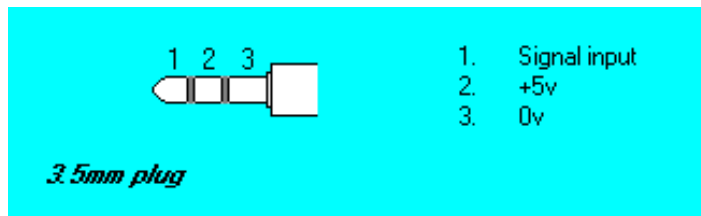
From http://www.hut.fi/Misc/Electronics/circuits/microphone_powering.html

National Semiconductor claims 1+ billion are sold *yearly*.

The electret hardware

tip—ring—sleeve