

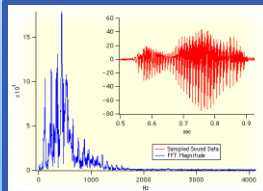
Basic Research Funded by the Federal Government: The Foundation Upon Which the iPod is Built

LCD Monitors: In 1988 the NIH, NSF, and DOD funded the basic liquid crystal research that led to the creation of thin film transistor liquid crystal displays (LCD) that are now used in the iPod Display.



Lithium-Ion Batteries: The rechargeable lithium-ion (Li-ion) battery, developed in 1990, stemmed from DOE basic research funding in electrochemistry; it greatly increases the battery life of the iPod.

Micro Hard Drive: In 1988, DOE funded research that discovered the Giant Magnetoresistance(GMR) Effect, which has led to the development of high-capacity hard drives as well as the micro hard drives that are found in the iPod.



Fast Fourier Transform: The Fast Fourier Transform, developed with a grant from the Army Research Office, has greatly increased the speed at which sound can be broken down into different frequencies, which is essential for all digital music formats.

Microprocessors: In the 1980's DARPA funded research at numerous universities which developed and solved problems with the Very-Large Scale Integrated(VLSI) microprocessor. Today, VLSI microprocessors are in all electronic devices, including the iPod.

