

GOZ

SUB ZERO



ONLINE CHALLENGE

Dismantling a 1998
CD & Cassette Player



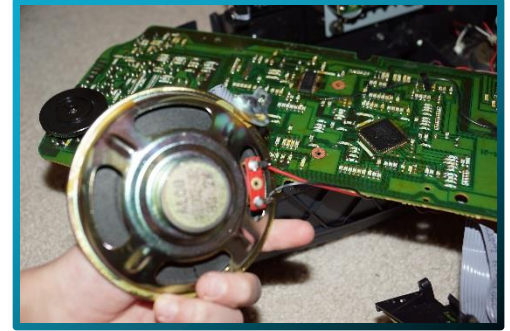
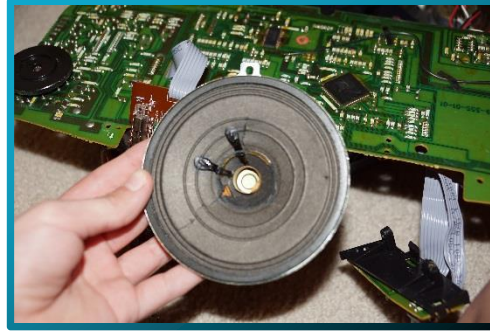
NEOBOTS

Hello. My name is Mark McKelvey, and I make up Team 60z. I have taken apart, observed, and analyzed a 1998 CD & cassette player for the Texas Instruments online challenge. I learned a lot about the different parts and equipment used in late 1990s technology. Not only did I learn about it, I was intrigued by it. The way that everything was connected and what each part did was amazing. This is my online challenge entry. I have set it up in a manner that talks about some of my favorite components.

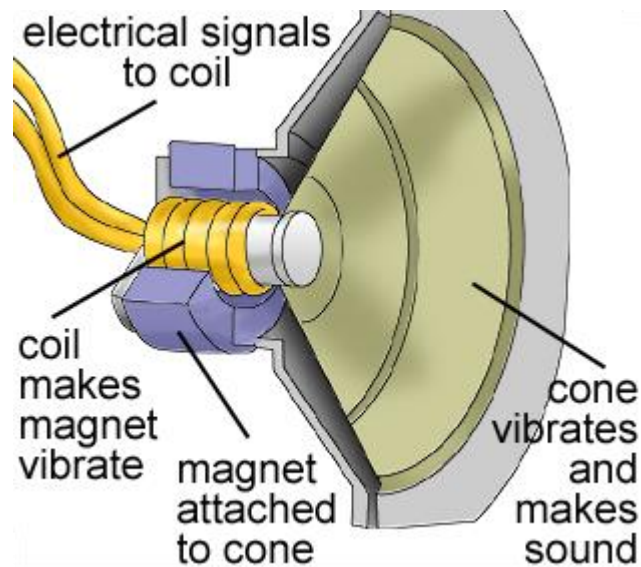
-Mark McKelvey



The Speakers

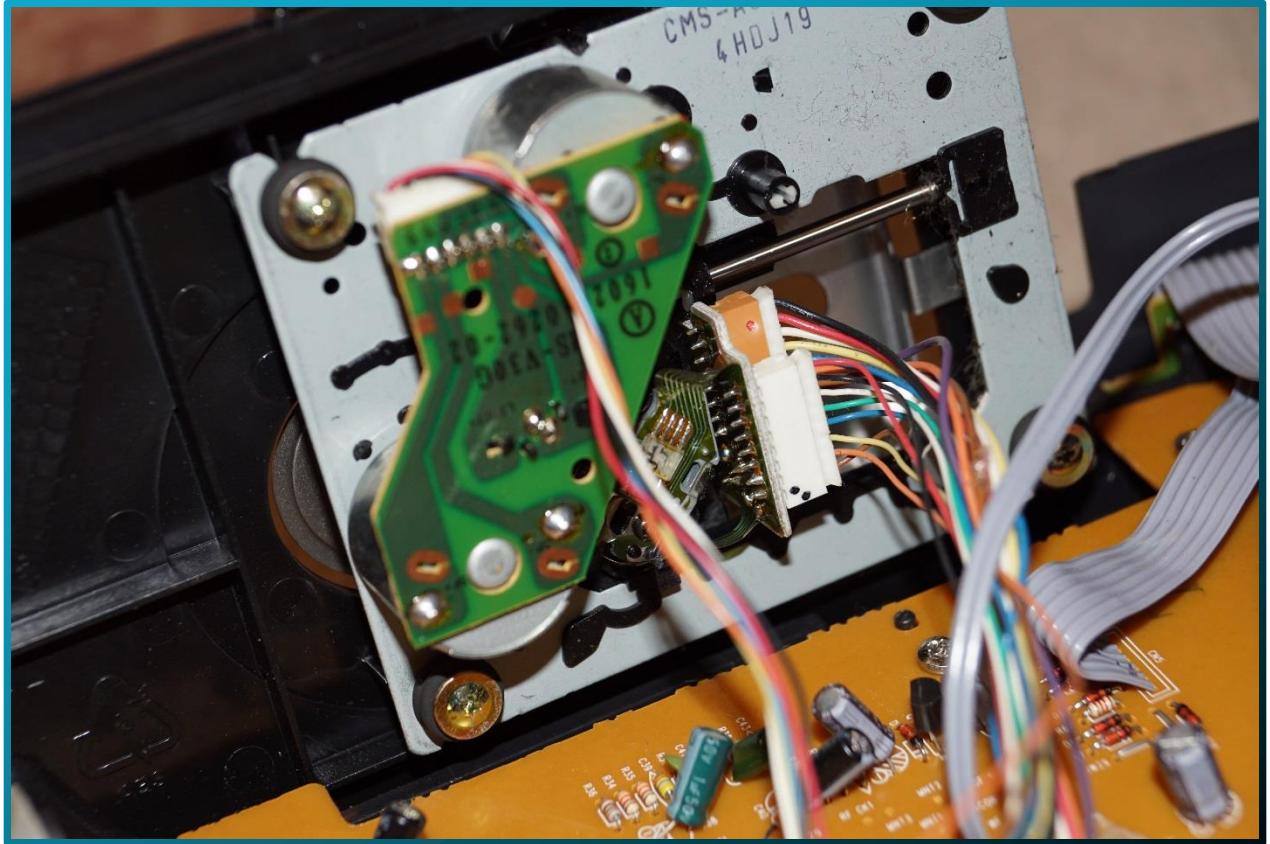


I have always been interested in how sound systems work, and I think it is really cool how a little circle of paper, glue, a magnet, and some metal is capable of amplifying sound by a massive amount. By creating an electromagnetic field, the speaker vibrates back and forth, amplifying the sound that is applied to it. A lot of times, some speakers are specially made for bass (subwoofer) and some are made for high pitch (tweeter).



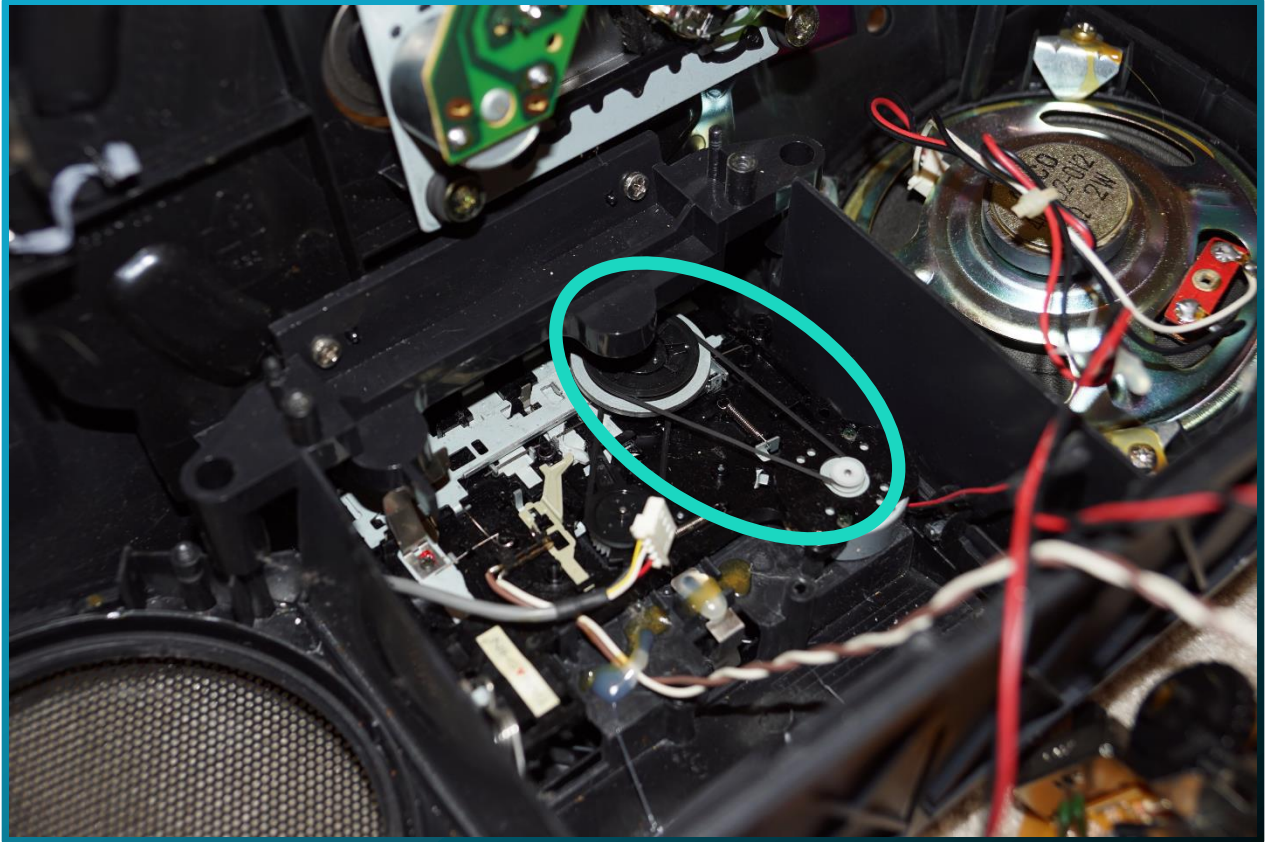
<http://period7magnets.wikispaces.com/How+do+speakers+work%3F>

The Disc Reader

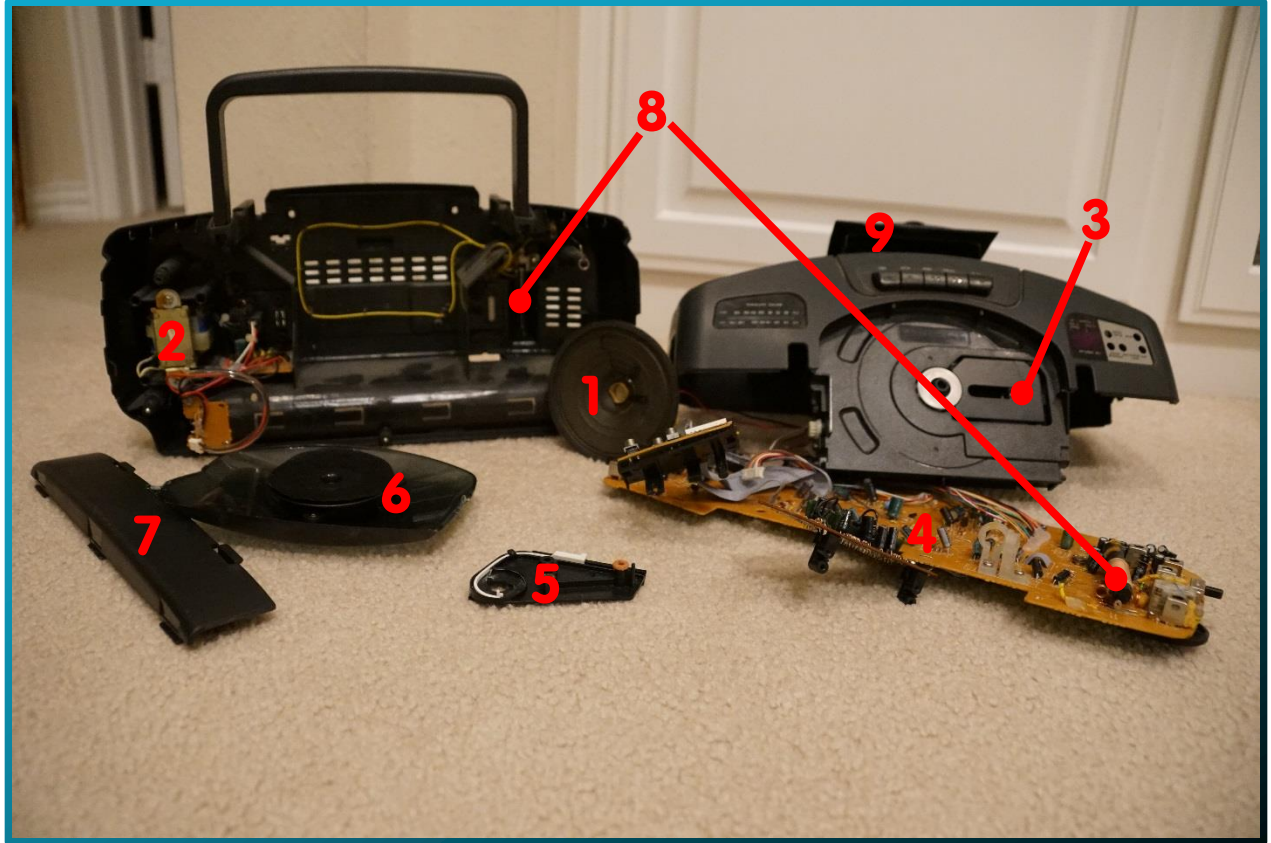


When I was young, I had absolutely no idea how a disc was able to play music. I then was told that they were read by a machine and had information. It turns out, that was the case. A laser reads the disc and finds the information. I thought it was really cool. In the CD player, a moving piece with a laser moves to various places on the disc and gathers information. I like it because it is quite interesting and fun to research.

Cassette Player



I thought it was really cool that the player had a cassette reader, too. A cassette is a sealed plastic unit containing audiotape, videotape, or film. It is on spools so it can go into a recorder or a playback device. The motor (circled in turquoise) spins the cassette tape.



- 1 - Speaker**
- 2 - Transformer**
- 3 - Disc Reader**
- 4 - Main Circuit Board**
- 5 - Tape Spinner**
- 6 - Disc Cover**
- 7 - Battery Cover**
- 8 - FM & AM Antennae**
- 9 - Cassette Door**

Not only did I learn a lot, I had a lot of fun. Dismantling technology is always a good way to gain an insight on how electronics work. I always look forward to new tech and love to learn about it. That's why I believe programs like VEX and companies like Texas Instruments are doing great things for kids to learn and grow. It is a wonderful opportunity, and being in the robotics program has created more memories than anything else in my life.