

Robotics Challenge

This is an iSymphony model cr8cd that we are breaking down and observing. We chose to break this one down because this does things that we use everyday with features like a clock, a radio, a speaker system, iPod docking, and a CD audio system. These components will help us learn how lots of things operate and we will be able to use this knowledge later on in life.

Starting with the motherboard. The Motherboard is the main circuit board, its main purpose is for computers. The motherboard is a printed circuit board which is also used for memory and storage. A typical motherboard cost \$200-\$600.

Next we are going to talk about the power supply. The power supply is an electrical device that gives electronic power to an electric load. The power supply's main job is to supply power to a voltage current that connects to the thing it needs to be powered.

The adapter is a device that converts attributes of one of the electrical devices or system to those of another incompatible device or system. Some modify power and others merely adapt the physical form of one connector to another.

Another piece of the motherboard that we found is a lot of electrical resistors. An electrical resistor is also sometimes called a resistor. Major resistors use the standard power source which is most likely the plug that you plug into the wall. The main point of them is to resist electricity. They are there to protect the other components from burning off and not being able to work. The value of the resistor is measured in ohm's named after the scientist Georg Simon Ohm. Other types of receptors are designed for circuits and a couple other things.

The capacitor plays another big role for the motherboard and the model itself. It is basically made out of two conducting surfaces, plates and dielectric material. The shapes they take are either flat or a cylinder shape. Discharging a capacitor can be dangerous though; which can even cause burns and even worse death if the capacitors are large. They are measured in a unit called farads, named after the scientist Micheal Faraday.

The transducer helps the energy flow by passing it from one to another which gets the energy around to every part of the motherboard which then allows the model to work.

The CD drive uses a laser light as a way to read the CD or write data. They can also use a thing called electromagnetic waves.

The button circuit board is the button that controls what the model does and helps with volume or power. The switch decides whether it will be on or off by either letting the energy flow or not flow at all. They allow the control over the current flow in the circuit board. Which allows you to not get into there and have to cut the wire to cut off the electricity.

Those are the parts of the motherboard and they all play an important role for the CD player/iSymphony cr8cd player.

We had an amazing time learning about all of these parts. Our group learned so much and would definitely do it again. Thank you for letting us take part in this challenge.

