

1064P Texas Instrument Electronics Challenge

Hexbug Larva Disassembly



Introduction

For our challenge, we decided to take a part a Hexbug Larva Toy because one of our members bought it while they were in Anaheim for Sack Attack worlds and after it stopped working we decided to bring it full circle and use it for an online challenge and see what interesting components we could find inside of it.

What's Inside

Inside of this toy we found a motor, an infrared light sensor, an ultrasonic sensor, a breadboard, and a switch. No components that we found inside were TI components or not labeled but still interesting nonetheless



How It Works

When put together these parts form into a fully autonomous Hexbug toy that can move around freely and can sense objects or obstacles in its path. First the motor allows power to the wheels making it able to scurry across the floor. The infrared light sensor and ultrasonic sensor allow the toy to be able to tell if something is blocking its path and relays a signal to the motor to switch directions and head another way. The breadboard allows electric signal to be passed thru to be able to pass readings between the motor and sensors. Finally, the switch either blocks or allows electricity to run to the motor and sensors to allow the toy to move.

Conclusion

In the end, we learned that that are many pieces that make a machine or toy be able to work and that by disassembling things you can get a better idea of how things were put together and how they work

Additional Pictures

