

Abstract

Purpose: The main purpose of my science fair is to make air quality sensors cheaper and more available to the public.

Procedure: I had to design and build a fully functioning air quality sensor. I had to solder, 3D print, wire, and design all of the components I used. I also had to learn how to program which I decided to learn the language C++.

Results: All of the gases I tested were able to be detected by my sensor. I tested ether, acetylene, Carbon Monoxide, ammonia, butane, and propane. I also tested my project in the cold, heat, and just in room temperature. I tested it when it was humid and dry out as well.

Conclusion: I found out that it is possible to make a more effective gas sensor as well as making it less expensive compared to other sensors that I found.