Build A Cantenna

Cantenna was a very neat project to work on. The purpose was to build an antenna with better range and less interference. Which was actually an easy task to complete. All you had to do was find a tin can and use the calculator to find the correct radius and length for it to work. This was the difficult part, to find the correct Radius of the can I had to measure multiple cans just to find the right one and after that, I was to find the correct Length which made looking for the can even harder. Fortunately, I found a Sweet potato can which was the perfect Radius and Length for the Cantenna. Although I am not a big fan of Sweet potato it all went in to the garbage except for the can which I cleaned and was ready to use for my project. The Radius was 3.6 and the Length was 5.9 which was a lucky find. After so I was to drill a 5/8 inch hole on the can, Specifically 1.97 inches away from the rear. then I was to insert an N Female Bulkhead Connector with a 2.4Ghz radiator in the hole of the can. The project itself was really simple to follow and easy to make.

After making the can it was time to test it to see how well it worked. To test it, It was taken outside and was pointed towards the courtyard where it was being measured by how powerful the transmission was. After testing my Cantenna I scored a -70dBm which resulted in a minimum signal strength for reliable packet delivery which is required for email and web. All in all, I think the Cantenna did well in its performance even though scoring A-Okay in the rubric. What would have made it more efficient would be If I were to add an extra can on top of mine with a bigger radius so it would block out more interference making my Cantenna more powerful.

This was a team project so me and my partner shared the work evenly in finding the right can to use for the project which we were successful in finding some would even say we got lucky in finding it. It was all a team effort, the hard part was when we were testing the Cantenna the signal kept changing. But after holding it in one place I was able to focus it and get a great signal in return. All in all, This was a nice project that we did and a skill I can use in the future.