

CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

Name(s)

Ayoub A. Abdi

Project Number

J0901

Project Title

Got Connection

Abstract

Objectives/Goals

The purpose of this project is to test which material will block a satellite signal the strongest. Also, to see if a material can increase the signal#s reception. This project could also be useful in giving information on how to make satellites water proof and stronger during snow or hail storms. This will benefit later generations by increasing satellite technology.

Methods/Materials

Material

- 1. Direct TV satellite dish.
- 2. Dish Network satellite dish.
- 3. FTA satellite dish.
- 4. Super Buddy satellite signal grader
- 5. Brick

Procedure

- 1. Assemble satellite
- 2. Fix Dish Network satellite to a firm foundation
- 3. Attach LNB cable to the satellite dish
- 4. Connect super buddy signal grader to the satellite
- 5. Aim satellite at downlink
- 6. Place satellite in front of building at a distance of 5 feet

Results

The findings for this project were, that at 7 feet the tree was the most effective and lower the signal strength to the lowest. This proved my hypothesis wrong because I predicted that the building was going to be the best signal blocker.

Conclusions/Discussion

The findings from the experiment went with my hypothesis. The data that was collected proved that the building is the best building blocker. The three satellites gave signals of -45.8,-45.7,-29.2 for Dish, Direct TV, and FTA respectively. My thoughts on the out come were that the results were quite believable. The reason for my belief is because the building is a large obstruction.

Summary Statement

This project was conducted to see what obstructer affects the satellite signal the most.

Help Received

Mr. Mahmoud help i lending me tools; brother Ahmed help organizing my project; Mrs. Najwan for supporting me through the whole process