

CALIFORNIA STATE SCIENCE FAIR 2005 PROJECT SUMMARY

Name(s)

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Project Number

J1432

Project Title

Electricity Instead of Spray

Abstract

Objectives/Goals

To see if electricity could be used as an ant repellant. Also to find out the lowest voltage that would repell an ant without injuring it.

Methods/Materials

The materials I used were a 12v-1.4 amp. battery, plain PC board, volt meter, wire, potentiometer(1m), wooden disk, dowel, circuit writer conductive ink, soldering iron, solder, battery, and 1/4in. wood.

Results

By raising the voltage up with the potentimeter, I found out the lowest voltage that would stop an ant from crossing over the two conductors was 11 V.

Conclusions/Discussion

In conclusion, if the 12 V battery was fully charged, and everything was working properly, I found out that the lowest voltage that stopped the ants from crossing over the two conductors was 11 V. If I were to perform more studies on the device, I would want to find a way to stop other insect pests.

Summary Statement

To find out if electricity can be used as an ant repellant.

Help Received

Father bought the materials needed; Teacher helped with design plans