

# CALIFORNIA STATE SCIENCE FAIR 2007 PROJECT SUMMARY

Name(s)

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**Project Number** 

**J0836** 

## **Project Title**

# How Can Super Fast Motion Be Captured with a Camera?

#### Abstract

## **Objectives/Goals**

The purpose of this experiment is to test how super fast motion can be captured with a camera. Fast motion picture that couldn#t be seen with a naked eye can now be captured with a 35mm or Digital camera.

#### Methods/Materials

I designed, created and build from scratch an electronic device that can captured super fast motion action with a camera. The device consists of electronic components (transistors, resistors, capacitors, SCR, potentionmeter to adjust the sensitivity, flash, a camera with a bulb setting, a microphone to capture the sound, an electonic board, soldering gun, and a tester.

#### **Results**

Amazing pictures!!, incredible shots!!. The device performed flawlessly. more details about the results in the report.

## **Conclusions/Discussion**

Through testing with various objects, the device is able to catch super fast motion most of the time. It is able to catch a balloon popping, but can't capture the bullet od a BB gun, which goes 250m/s. The device could be improved by adding more sensor, not only to capture sound but to catch motion, light or very soft sound like dripping water, which would result in pictures never seen before.

## **Summary Statement**

I created an electronic device, that can capture fast motion picture with a camera, that could not be seen with a naked eye.

## Help Received

My Dad helped me with the display board, due to constraint of time.