



**CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY**

Name(s) Daniella A. Luciani	Project Number J1015
Project Title Light Tracking Robot	
Abstract Objectives/Goals The objective of the project is to see how fast a light tracking robot moves in different intensities of light surroundings. Methods/Materials Built a light seeking and directed robot with a breadboard, wiring, photo resistors, MOSFETs, battery holder, potentiometers, toothbrushes, vibration motors and other parts for the circuit obtained from sciencebuddies.com. Used a timer and flashlight to conduct experiments testing robot speed and direction based on three surrounding light settings, high-lit, medium-lit, and non-lit. Results The results of my experiments demonstrated that the robot traveled 3 feet faster directed by a flashlight, in a non-lit room. In 4 trials the robot had an average speed of 3 feet per 5.7 seconds performed in the non-lit. The medium-lit room had average of 3 feet per 6.83 seconds, and the high-lit room with an average of 3 feet per 10.73 seconds. Conclusions/Discussion I determined that a light seeking and directed robot traveled faster with no surrounding light in the room. In the other tested light surroundings, high-lit and medium-lit, the ambient light in the room negatively effected the performance of the robot.	
Summary Statement I built and created a light tracking robot and learned it has a faster speed with a non-lit light setting in its surroundings.	
Help Received I built the robot, wired the circuit, and conducted the experiment myself. I was given the design and basic instructions from sciencebuddies.com.	