



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Samuel H. Deverett	Project Number J0108
Project Title Spin Will Win: Understanding the Dynamics of Golf Ball Spin	
Abstract Objectives/Goals This science fair project determined how or if the angle of impact of a golf club on a golf ball affects the rate of spin. In other words, how or if ball placement in one's stance affects the distance that the ball rolls after it has hit the green. Methods/Materials A machine was built of wood, screws, springs, and turf to create a consistent swing, taking out the variable of human error. A golf club attached to the center of the machine by a spring was pulled back to the same point on every shot and therefore released at equal speeds and direction. Twelve shots from seven different impact angles were struck from the same place on the fairway to the same target on the green. The landing spots of all shots were marked and then measured to the final resting position of the golf ball, thus exhibiting the rolling distance or rate of spin of the ball. Results Golf balls placed further forward in the stance rolled significantly less than those placed behind further behind in the stance. In the farthest forward position, the golf balls rolled an average of 284 centimeters after landing, while in the farthest back position the golf balls rolled an average of 402 centimeters. Conclusions/Discussion The results demonstrate that the further forward one places the golf ball in their stance, the more spin the ball receives and thus the less it will roll after contacting the green. With this knowledge, golfers everywhere will be able to understand and use spin affectively, putting them in control of their game and likely leading them to achieve better scores.	
Summary Statement This project determined how golf ball placement in one's stance affects the rate of spin on the golf ball.	
Help Received Father to work machine during testing while I marked the balls' landing location	