



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) Erik Mora; Alex Munoz; Jacob Zavala	Project Number 38232
Project Title Data Collection and Analysis of Aerial Drone Photography	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals In recent years, drone technology has had large advancements. Now that drones have gone from expensive to less expensive and more available to the public, this technology can help not only the common folk but larger companies as well. In the project here, a drone was used to take aerial photos in order to observe specific terrains. 40 flowers were randomly placed on a strip of land. A drone was coded in order to take photos of the land, which were then examined to see if the flowers that were placed could be identified in the photographs.</p> <p>Methods/Materials Place Markers, Notes, Drone, Species Props, DJI Mavic Pro, Calculator, Droneblocks Coding App, Meter Roll, Cell Phone</p> <p>Results Once the tests to get the working code were successful, the code was then used with props, used to represent a species, which then showed the hypothesis was proven correct. Even with the props being rather small and hard for any camera to distinguish from the height of 55ft. The use of the drone allowed to analyze the terrain with the specific species allowed for more in-depth analysis of the surveyed area.</p> <p>Conclusions/Discussion The results of the data and project as a whole show the ability to gather data from a new angle. The methods can be applied to new research and even private companies to gather desired information on area.</p>	
Summary Statement Using new technology can we use a code to run a program that can consistently gather data with photos over desired areas.	
Help Received Science Teacher Supplied Drone	