

Aurora OpenCV Challenge Level 2

Helping the Red Arrows

The Red Arrows, Royal Air Force Aerobatic Team, is performing for their grand acrobatic event, and this year the RAF wants intelligent and good photography of their team.



You're an engineer in the Royal Air Force to design a module visual monitoring system to track the Red Arrows such that the RAF gets great pictures of the event.

There will be many teams demonstrating in the event. The cameras are optimally places that the background of the image is mostly clear.

You are tasked to

- detect the number of number of Red Arrows in the image

- provide a rough pixel location of the each of the Red Arrow aircrafts detected, mark them with green circle

- detect other black/grey support aircraft and mark them with a red circle

The module gets an input of a single image from the camera (like the attached test image.jpg, maybe of a fixed name), you are supposed to output/print the number of Red Arrows in the image and a list of lists with the xi and yi coordinates of each of the n Red Arrow in the following format $[[x_1, y_1], [x_2, y_2], \dots, [x_n, y_n]]$ and output the resultant image after marking the aircrafts.

