

Chase-bot

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Our robot will follow an object using a camera. An object will be identified and located in a scene. Chase-bot will move to keep the object appear in the same location and the same size. Object to track will be known beforehand. The minimum feature we will develop is locating an object using morphological image processing techniques using its centroid and decide to move left or right, and using size information to move forward or backward. The speed of the robot will be controlled using some control algorithms. We will display what the robot sees for debugging and demo purposes. For extra features, we might implement switching objects to track, avoiding obstacles, or voice/gesture control. The hardware of the project would be a car typed robot, and would be able to control the speed and direction, and have the camera and FPGA on it.