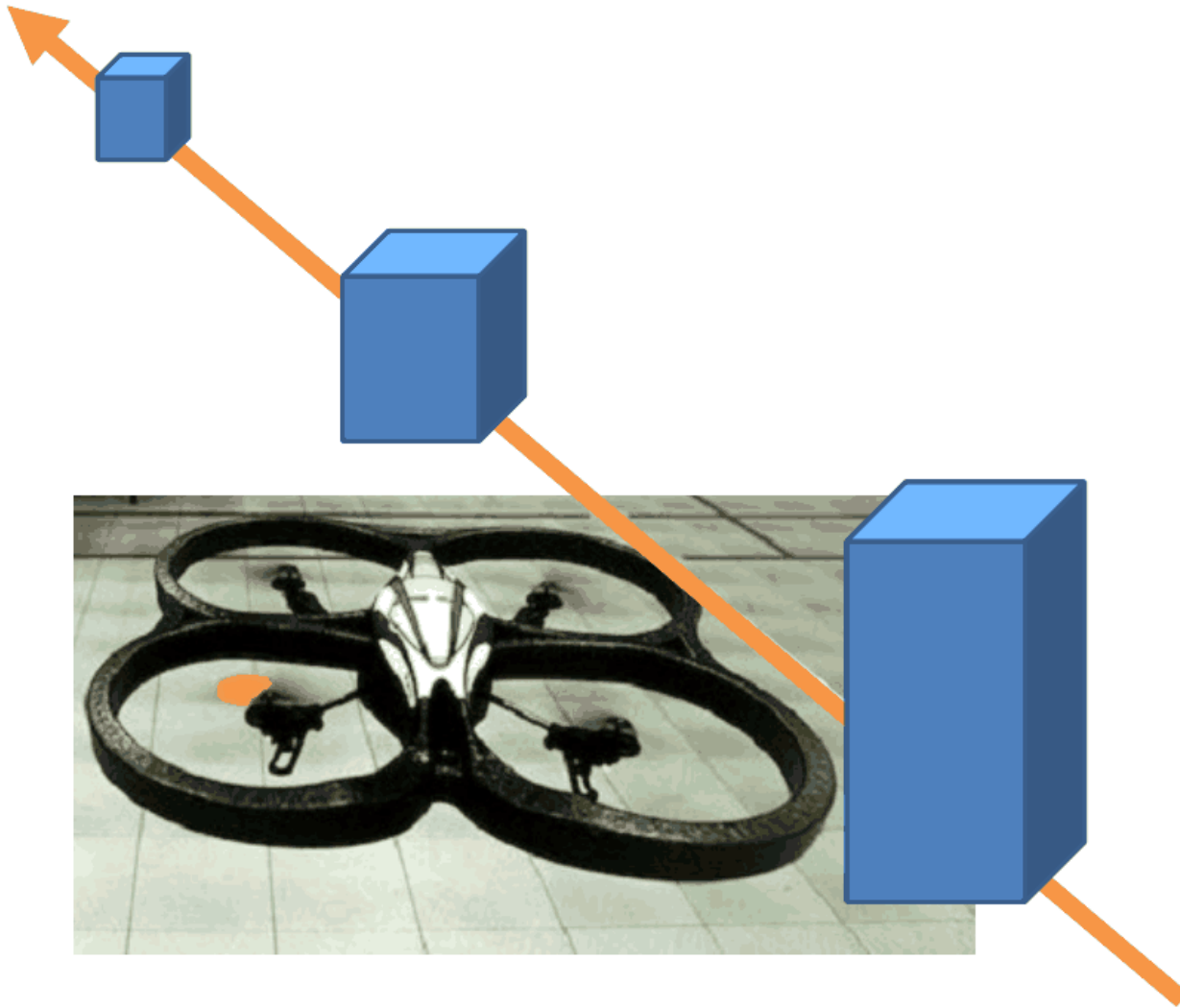


Avoiding obstacles while following a line

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Avoid obstacles while avoiding obstacles



Challenges

- Follow line
- Locate obstacle
- Avoid obstacle
- Redetect line

Assumptions

- Static world
- Line:
 - clearly distinguishable
 - no intersections
 - limited to slight curvature
- Obstacles:
 - bright colours
 - fixed size

Approach

- Follow line:
 - Use Hough Transformation to detect the line
- Locate obstacles:
 - First step: detect markers on the obstacles
 - Second step: use optical flow to detect obstacles
- Avoid obstacles & redetect line
- Find waypoints around obstacle