1. Preprocess the image:

a. Convert the image to grayscale.

b. Apply Gaussian blur to reduce noise.

c. Use Canny edge detection to detect edges in the image.

2. Detect lines using Hough transform:

a. Define parameters such as rho, theta, and threshold for the Hough transform.

b. Apply the Hough transform on the edge-detected image.

c. Extract lines from the Hough transform output based on the defined parameters.

3. Filter detected lines:

a. Set thresholds for minimum and maximum line length.

b. Filter out lines that don't meet the length criteria.

4. Output the detected lines:

a. Draw the detected lines on the original image for visualization or further analysis.

b. Return the coordinates or parameters of the detected lines.

5. End.