Recognizing the Board

- Detect edges
- Binarize red and green channels
- Morphological edge detection
- Hough transform
- Separate lines into sets by theta value
- Estimate homography
- Detect lines
- Locate squares

Objective

Detect a chessboard and identify pieces on it using image processing techniques

Possible improvements

- Use corner detection to correlate with lines.
- Improve algorithm to find initial square.
- Use size variations between chess pieces to improve piece recognition.
- Try another shape signature that is more robust to scale and rotation or use 3D object recognition.
- Process images from different views to recognize occluded pieces.