

## Re: Hough Transform for rectangle

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Thanks all for the response, was knocked out for a few a while due to bad flu + heavy work load. In case anyone is interested this is what I have done with relatively good results + time response.

1. Make it gray scale, then blur slightly with gaussian blur, sigma 1.1
2. Use difference edge detection to produce an edged image
3. Threshold with Otsu, make a clear outline of the image.
4. Use snake to find close bounded objects, then collect the pixels, and calculate the bounded rectangle.
5. Use some logic to remove object that is too small or impossible to be signboard.
6. Use a simple least squared error method to least error between pixel and bounded rectangle. Since the problem was simplified to vertical rectangle, the close bounded objects with smallest least squared error should be the correct one.

Success!!! so far with 10 test image (i know it a small small small sampling :p) , got 80% good, 15% wrong, 5% missed.  
missed usally due to glare on the matel frame which cause the rectangle to be incomplete (which is also the draw back of snake) may still have tp try hough or radon later.  
wrong not sure why now, still playing.

Jonathan

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