Automatic Traffic Sign Recognition  
EE 368 Final Project Proposal  

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1 Project Proposal  

This proposal is to develop an image processing algorithm that can automatically detect the different traffic signs, such as the ‘yield’ sign, ‘stop’ sign and the speed limit sign, as shown in Figure 1. The finished project will work like this: an droid phone will be mounted on a moving vehicle or bicycle, the camera on the droid phone will capture the real time scene in front of it. When one of the signs is close in sign, the camera can detect it and send out the corresponding signals.

This project basically is a feature detection work on the real time video. Features such as the shape (like triangle and octagon), size and color of the signs can be used to detect the corresponding sign, the feature detection functions in OpenCV library might also be used.

2 Minimum Deliverable  

The algorithm will be able to detect three different categories of traffic sign: yield sign, stop sign and other road signs.

3 Optional Features  

If a traffic sign is detected, the algorithm will try to find whether it is a speed limit sign, if it is, it will extract the limit number from the sign.

4 Use of Droid Phone:  

Yes
Reference

