Finding lane lines on the road

This project I used canny edges detection and hough transform to build a pipeline in order to detect lane lines on test images. Then I applied the pipeline on videos.

My pipeline consists of 5 steps:
1.Convert images to grayscale using cv2.cvtColor()
2.Smooth images using cv2.GaussionBlur()
3.Detect edges using cv2.Canny()
4.Select region of interest
5.Detect lines using cv2.HoughLinsp()

In order to draw a single line on the left and right lanes, I modified the draw_lines() function. First I used np.mean() to find the avrage slope and intercept of left lines and right lines, but it worked not so good.Then I refered to the method from naokishibuya's GitHub, adding more weight to longer lines, and it worked better.

One potential shortcoming would be what would happen when driving on curve. The straight lines can not cover curve lane lines.