

# Review of: "Simulation of Control System for a Half-Car Suspension System for Passenger Vehicle Application by Designing an LQR Controller"

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Potential competing interests: No potential competing interests to declare.

The article is of good public interest but it need several improvements:

In the initial review, I would like to suggest the authors

1. To improve the abstract in terms of motivation and results
2. To define the novelty of the work
3. Most of the figures are not cited in the article.
4. Why the LQR model is considered isn't mentioned as several good models are also available.
5. No comparison between the different speeds considered is shown.
6. Equation for random road profile is not described.
7. Why the frequency for sinusoidal profile is taken as 8 Hz it should be thoroughly studied if it is taken from the previous work that must be cited.
8. The working of LQR controller is not described.
9. The results plots are just written but they must be properly discussed in the result section.
10. Better to prepare the flow chart of the technique.
11. Why these parameters are considered should be described in the article.

These are the initial review comments. Once the authors will include these in the article, thorough review will be done.