# Requirements for Automatic Lane Keeping System

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1. The vehicle shall be able to maintain autonomous operation under reasonable road conditions indefinitely
2. The vehicle shall stay within the middle 80% of any given lane at all times
3. The vehicle shall maintain constant forward velocity
4. The control system shall always be in the one of the following states: Hard Left, Soft Left, Neutral, Soft Right, Hard Right
5. The control system shall only enter a state other than Neutral when needed to turn
6. The control system shall operate at a minimum of 5 Hz during normal operation