

Automotive Power Electronics Engineer Interview Questions

1. Walk me through how you conduct or direct system-level automotive testing.

2. What have you found to be the best way to conduct automotive design reviews?

3. What kind of experience do you have developing engineering specifications or cost estimates for automotive design concept?

4. Share an example where you researched computerized automotive applications, such as telematics, intelligent transportation systems, artificial intelligence, or automatic control.

5. What have you found most challenging when developing specifications for vehicles powered by alternative fuels or alternative power methods?

6. Tell me how you would design vehicles that use lighter materials, such as aluminum, magnesium alloy, or plastic, to improve fuel efficiency.

7. Share your approach on designing vehicles for increased recyclability or use of natural, renewable, or recycled materials in vehicle construction.

8. Describe methods used to create design alternatives for vehicle components, such as camless or dual-clutch engines or alternative air-conditioning systems, to increase fuel efficiency.

9. How often do you read current literature, attend meetings or conferences, and talk with colleagues to stay abreast of new technology and competitive products?

10. Tell me the last time you prepared or presented technical or project status reports. How did it go?

11. In your opinion, how hard is it to establish production or quality control standards? Share an example.

12. Tell me about the last time when you coordinated production activities with other functional units, such as procurement, maintenance, or quality control.

13. Share how you conduct research studies to develop new concepts in the field of automotive engineering.

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14. How well do you write, review, or maintain engineering documentation? Share an example.

15. What kind of experience do you have providing technical direction to other engineers or engineering support personnel? How well was your help taken?

16. Share an example when you successfully developed or integrated control feature requirements.

17. Share your knowledge when it comes to calibrating vehicle systems, including control algorithms or other software systems.

18. Tell me about your experience building models for algorithm or control feature verification testing.

19. Describe methods you have useful to alter or modify designs to obtain specified functional or operational performance.

20. Share an example when you designed or analyzed automobile systems in areas such as aerodynamics, alternate fuels, ergonomics, hybrid power, brakes, transmissions, steering, calibration, safety, or diagnostics.

21. What is the most challenging part of designing control systems or algorithms for purposes such as automotive energy management, emissions management, or increased operational safety or performance?

22. What do you know about green automotive technologies involving alternative fuels, electric or hybrid cars, or lighter or more fuel-efficient vehicles?