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## Adem Kader

### E90 Topic Selection Memo

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For my E90 project, I would like to work on a steer-by-wire system that would replace the traditional power assisted steering system. The system would essentially turn the wheels and provide some resistance to steering in order to give the driver the feeling of a regular car. The automobile industry has focused on steer-by-wire and there are prototypes of the system due to its many benefits. Such a system can make the design and production of cars much easier. Firstly, one design would fit different cars, because much of the physical connection between the steering wheel and the wheels is removed. Secondly, the placement of the steering wheel on either side of the car is essentially the same and it would require little to no changes in the chassis. The steer-by-wire system can be easily customized for different people by adjusting the resistive force to steering. It can also be integrated easily with digital systems.

I am planning on working with Professor Cheever.