Overall Project

1. Why do you the project? Mobility is a key factor in industry. The autonomous micro Segway would allow a person to travel without needing to leave their office or even their house.
2. What exists/How done? Segways are already out in the world but as a way of transportation. There are also autonomous segways that act has robotic servants.
3. My project brings a bit more to the table then just a Segway. It would allow travel for someone say who is immobile.

Processor- Electric Imp, Dragonboard

1. Why? I want to use two different processors for the project. First the electric imp will be used for mostly communications aspect of the project. The electric imp is extremely easy to connect with internet and send data over wifi which will be useful when using a phone. The Dragonboard will be used for motor and sensor control. Also, the dragon board is also Wi-Fi compatible and has an GPS on the board.
2. External vs. Internal For the electric imp its external components are not too useful. The main advantage of the electric imp is its internal use. It is great with Wi-Fi communication. For the DragonBoard, however, it has both great internal and external capabilities. It has several GPIO pins that can be used for motor control and
3. The speed cushion – This project has a life cycle of several years. Mobility will always be a factor industry thus the project would always need to be implemented.
4. Cost consideration- The cost of the project would be worth it. For the most part it is a lower cost project with high return in terms of use.

Hardware Choices

1. Availability - The Segway was already fabricated from a few years ago. So, the motors as well as chassis and battery are already available.
2. Reliability- The project already worked and was able to move. However, I am redesigning the functionality because it had not work as well as expected in previous years.