

Free research proposal about pid controller design: statement of need

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This design project requires one to build a demo platform that will elaborate ECE/CPE concepts using a PID Controller. A demo platform is needed in this design, since developing it has numerous advantages, which have been discussed in this report. The first advantage of building a demo platform is that it serves as a prototype, which implies that it will help in the identification of any design flaws and errors. This is attributable to the fact that prototyping assists in determining whether the system functions as required. It is important to have the demo platform as a developer can easily eliminate any errors identified. The demo platform is also important as it forms the basis for a full-scale system. The demo platform will also be used to determine the overall cost of the final design. This is crucial since the overall design specifications require a low-cost design.

The demo platform will mainly be utilized in demonstrating the functionality of the designed system since the demo platform also allows the developer to present and demonstrate the working of the design. Presenting the system is essential in ensuring that the designed system works as required and meets the laid out system requirements.

The design requires a number of parts and instruments such as brushed DC motors, a display screen, a load, power source, and sensors. These instruments are readily available online on different e-commerce websites, and one can easily purchase, have them delivered, and utilize them easily for the final design. The main limitation of the instruments provided in the design requirements is that they are very specific. Therefore, if a specific instrument cannot be easily accessed one will have to modify the acquired instruments and this may increase the cost of the overall design.

Works Cited

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