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# Design, Fabricate and Test an Automatic Toilet Seat

David J. Badaszewski

*Indiana University - Purdue University Fort Wayne*

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Final Report on a Project to  
Design, Fabricate, and Test an Automatic Toilet Seat

Prepared for:

Professor Don McAleece  
MET Department  
Indiana-Purdue University, Fort Wayne, IN

by

David J. Badaszewski

April 26, 1988

DESCRIPTIVE ABSTRACT

The design in this project uses simple but effective techniques. The whole concept of this project is to lift a toilet seat, which consists of a cover and the seat itself, by mechanical means rather than having to do it manually. Design criteria, test results, a cost breakdown and drawings are included for a full analysis of the solution.

## INFORMATIVE ABSTRACT

The automatic toilet seat effectively raises and lowers the cover and/or the seat without being touched by the user. The automatic toilet seat consists of: two DC motors with gear boxes attached to each. The shafts are attached to the gear boxes by couplings. The shafts are then mounted to the seat and covers' hinges that come with the purchase of the toilet seat. Mounting brackets are required to prevent the gear boxes from excessive movement. The power requirements for the automatic toilet seat are provided by two 6V batteries. Appearance was taken into consideration because a bulky, intrusive design is not desired. The unit was built so that there are no obstructions to the user. The motor is partially enclosed to prevent contact with moisture.

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