REDESIGN OF SHUTTLECOCK CAP USING RATIONAL DESIGN METHOD (Case Study at "Kumala" Shuttlecocks, Solo)

THESIS

Submitted as Partial Fulfill of the Requirements to Obtain the Bachelor of International Industrial Engineering Degree

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2007

STATEMENT OF WORK'S ORIGINALITY

I honestly declare that this thesis which I wrote does not contain the works or parts of the works of other people, except those cited in the quotations and bibliography, as a scientific paper should.

Yogyakarta, June 7, 2007

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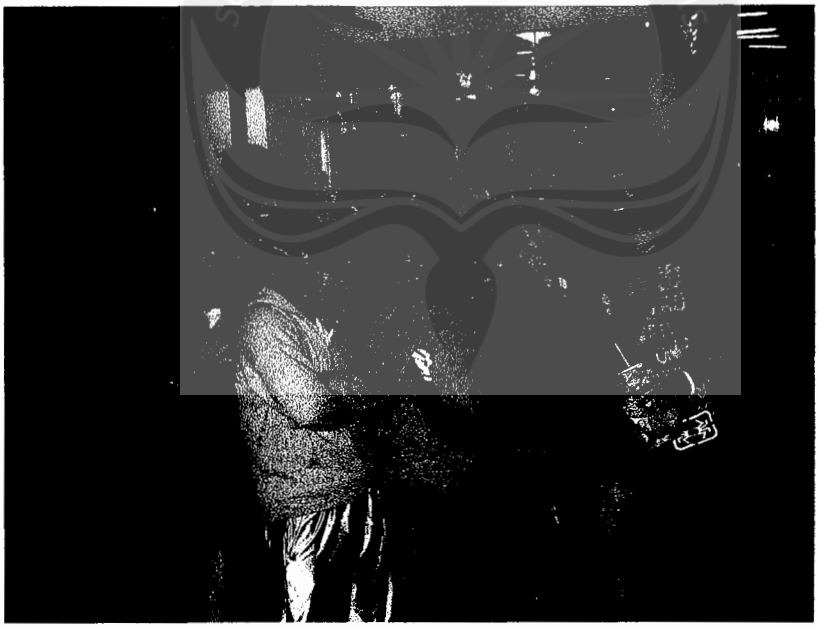
My Brothers and Sisters



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Time flies like an arrow...
But friendship is eternal.

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The writer hopes that the Final Project report will be useful for either the writer or all who needs and reads the report.

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ABSTRACT

Display quality becomes the vital subject of product attractiveness. Customers are usually attracted by the package of the product when they first buy the product. There has been complains about the uneasiness in opening and closing the cap of "Kumala" shuttlecocks. The objective of this research is to find the main problem in product display attribute, and find a way to improve the design or redesign the feature of the solution.

The writer used gap analysis to define the main problem in the product display of "Kumala" shuttlecocks. Next, the writer used Rational Design Method to define the attributes of the cap, and Analytical Hierarchy Process to choose the best solution based on the prototypes of the cap.

From the research, the writer concludes that the problem solving priority is the cap design. The writer generated 9 cap attributes to be weighted by the respondents and was made House of Quality matrix. Based on the House of Quality matrix, the writer produced three prototypes with the parameters are easiness to open, easiness to close, finger comfort in opening and closing, and hand movement comfort. Based on the analysis, the best alternative for the new cap design is prototype C with the AHP ranking score is 0.3889.