

Design and Development of New Musical Products Using Recycling Waste

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Abstract: During the last decades, many companies around the world began to research new methodologies and techniques, the aim was to improve their process and increase their found monetary. As a consequence of their efforts, many companies discover that the recycle of their wastes represented a significant part of their monetary resources. This research presents the use of the methodology Design for Six Sigma to develop new products using different scrap generated by their process. The objective is to search for the defective goods and materials generated for the process, evaluate their condition and use it for the design and develop of new products. The methodology considers seven phases: 1) idea, 2) analysis of customer and business requirements, 3) concept develop, prototype design for service or product, 4) manufacturing process and set up of the product introduction, 5) production in mass, 6) consumption of the service or product, and; 7) disposition of the service and product. The results obtained, are four new products using 100% scrap and a reduction of 23% of the costs generated by the wastes and scrap recycled. This reduction represents a saving of \$ 60,000.00 USD per year.

Keywords: New Products, Scrap, Design for Six Sigma.