

## **Research Paper**

**Engineering** 

## Innovation in Designing of Some Electronic Toys With Same Cost

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**ABSTRACT** 

The Toy business is generally based on constant innovation and one needs to be always abreast with the changing tastes of the customers and competitor's strategy to produce new innovative toys for survival in the market.

This paper addresses the issues related to designing of some electronic toy circuits in

such a way that toy may become more appealing in the eyes of children and parents. This paper also deals with three electronic toys i.e. musical monkey, Lovely doll and Lions wild animal for which some innovation in designing is suggested in such a way that cost of a toy will remain the same but look of a toy can be enhanced. For each toy present circuit component, possible modification, remarks on modified circuit and their images are shown in the table.

## **KEYWORDS: Innovations, Electronic toys, Cost**

#### I. INTRODUCTION

The advancements in toys throughout the decades have continued to amaze kids and adults alike. One of the best types of toys are the electronic ones. These not only entertain kids for hours on end, but they can also be quite entertaining for many grown-ups as well.

The toy companies think of entirely new ideas or improve upon existing ideas that amaze kids and adults. These new products will appeal to parents just as much as they appeal to their kids (The People History, 2013).

Each and every child would like to play with electronic toys having more and more features. The more the features the toy would have the higher would be its cost. In this paper, attempt has been made to identify features and suggest some innovative designing to make the toy more attractive.

With the development of new technology there is always ample scope for improvement or modification in conventional toys as well as development of totally new toy. So there is ample scope for developing new specific toy industry in India.

For innovative toy designing, there is a dire need for greater creative

skill, user knowledge and technical advancement.

#### II. OUTCOMES OF EXPERIMENTS DONE ON INNOVATION OF ELECTRONIC TOYS WITH SAME COST

Here three electronic toys namely Musical Monkey, Lovely Doll and Lions Wild Animal were experimented and suggested innovative ideas which will further improve its look and will be more eye catching for kids. Hence such toys will make the child happier.

For these electronic toys innovation with no change in cost has been suggested so that a toy can be made more appealing, attractive and at the same time its cost will remain the same.

For these electronic toys innovation with no change in cost has been suggested so that a toy can be made more appealing, attractive and at the same time its cost will remain the same. Here list of all these toys for which innovation has been done is described.

Change in design of toys brought about and their respective remarks on the modified circuit are given in Table 1. Images and name of these toys along with their appropriate age group are also shown in

### **Table 1 Innovation of Electronic Toys With Same Cost**

S.No.	Present circuit component	Possible modification	Remarks on modified circuit	Image of toys and their names
1.	Motion of arm and motion of toy is straight	Motion of monkey can be made in zig-zag by changing the orientation of shaft	More appealing and attractive to kids. And No difference in cost after making this modification	Musical monkey: Ages 3 and up
2.	Hands of doll are stable	Movement of hands can be made and it can be synchronized with legs.	For this modification no additional motor will be required and hence there is no change in cost but its appearance will improve.	Lovely Doll: Ages above 3 years
3.	Position of speaker	Can be behind or inside the lions mouth	So that when it opens or closes the mouth variation in the intensity of sound may be noticed and can provide much better effect of sound and cost will remain the same.	Lions Wild Animal: Ages Above 3 Years

# III. CONCLUSION OF INNOVATION OF ELECTRONIC TOYS WITH SAME COST

With the suggested innovative and novel ideas in modifying the above electronic toys, toys will become more attractive, eye catching and appealing for kids. By implementing these ideas in the suggested electronic toys will appeal more to parents and children and hence the popularity and demand of these will drastically increase in the market. Because of the high demand of attracting and appealing electronic toys in the market their marketing will be high.