

ENTERTAINMENT BASED TOY [Elephant]

Team Details

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Project Objective

Implementation of entertainment based toy using Arduino which helps the child to entertain by its action and appearance.

Issue

This toy is used to entertain the child. It is useful for children aged 3-5 years. As now-a-days toy manufacturing industry are interested in designing of toy in entertainment field. This elephant toy attracts the kids by its appearance and actions. The toy moves as slow as possible. Its is easy for kids to operate this toy.

Project Coordinators

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Existing systems

- RC Programmable Robotic Elephant
- Electric Elephant Musical Toy
- Transforming Action Figure- Elephant

User requirement

- Arduino UNO
- Drive motor
- Shafts
- Wheels
- Breadboard
- Ultrasonic Sensor
- Rechargeable Battery
- Switch

Gaps in the existing system

- The main disadvantage of above mentioned existing solution is cost is very high.
- It is also much difficult to operate the elephant toy because it has many advanced functions .
- It is difficult to remember which button in remote is used to perform particular task.

Methodology



- Firstly a code with required operations including ultrasonic sensor and Bluetooth module with switch operation is uploaded into micro-controller(Arduino).
- L293D Motor driver shield is attached to Arduino board and wheels using shafts are attached to the motor driver using wires. Bluetooth module sent the signal to the Arduino board and wheels starts rotating . Hence the elephant toy moves forward.
- We can operate it manually by using ultra sonic sensor. If ultrasonic sensor detects any object (obstacle) then it will change toy's direction.