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| **Remote Controlled Car Project**      This project document is confidential subjected to the intellectual property rights. | Abstract  The project is aimed to make a remote controlled car for children in the age range from 6 to 10 years. The project requirement details is written in this document according to the meeting held between the corporate representatives.  Naguib    Prepared by:   * Eng. Merna Hany * Eng. Sara Kassem * Eng. Assma Adel * Eng. Mahmoud Naguib * Eng. Mohamed Ossama   Supervised by:   * Eng. Mahmoud Abo Youssef. |

1. **Introduction:**

This document contains the customer requirement specifications for the remote controlled car. These requirements have been derived from several sources, including a description of the car body and the mobile application that will control the car movement and other features.

1. **General Description:**

A friendly toy car for children between the age of 5 and 12 that is controlled using a mobile application. The project consists of two main parts, the car body and the ready-made mobile application that controls the car movement from a distance. The car supports moving in all four directions, different speed levels and different light intensities to provide an enjoyable experience for the child.

1. **Car  Body Specifications:**

This section gives a detailed description of the dimensions, drive modes, car features and battery life.

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| **ID** | **Name** | **Description** |
| **CBREQ1** | Speed | 3 speed levels controlled by slider gui in the mobile app |
| **CBREQ2** | Drive Modes | 4 directions controlled by arrows gui in the mobile app.  The car should stop first then change direction, then moves again |
| **CBREQ3** | Back Container  Adjustable weight | - Can carry up to 200 gm  - If the weight exceeded the limit, it should not move, and start buzzing |
| **CBREQ4** | Battery | - Rechargeable  - Lasts up to 3 hours |
| **CBREQ3** | Button Enabled Light | - Headlights and Tail Lights are controlled by a slider gui in the mobile app |
| **CBREQ4** | Buzzer | - buzzer enabled by button  Gui in the mobile app, every time it’s pressed, the buzzer goes out |
| **CBREQ7** | Range of Motion | - Can go far  up to 9 m distance |
| **CBREQ5** | GPS Tracker  (bonus) | - Button gui in mobile app, when it’s pressed it should send a message including the longitude and latitude of the location of the car |

**4. Remote Control Specifications:**

This section specify the ready-made remote control specification regarding the control buttons needed and the functionality of each one.

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| **ID** | **Name** | **Description** |
| **RCREQ1** | Ready made mobile application | -Mobile controlled |
| **RCREQ2** | Control Buttons | -To control movement in all four directions |
| **RCREQ3** | Light switching button | - Two buttons that switch the front and back lights on/off. The number of time child will press the button will controll the light intenisty. |
| **RCREQ4** | Buzzer button | -Button to use the buzzer |
| **RCREQ5** | Speed controller slider | -Can control the speed either increase or decrease |
| **RCREQ6** | GUI led | -LED which changed colour depending on the connection state. |
| **RCREQ7** | On/Off button | -To switch the car on and off |

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**5. Delivery Requirements**

    First tested prototype delivery after three months, then a two month period to test the final product. Waiting for your response which should mention the details of the project budget.