

# Market Research Report

Team number 8

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## 1 Introduction

This report provides a market research analysis for the components required in the project. And it may be modified depending on the project requirements and needs.

## 2 Actuators

### 2.1 Component Selection

Model	Type	Specifications	Price (EGP)
1	Servo Motor (MG995)	Torque: 10kg/cm, Voltage: 4.8 - 7.2V	238.00EGP
2	Dc brush-less Motor (A2212/6T)	2200KV	550.00EGP

## 3 Sensors

### 3.1 Component Selection

Model	Type	Specifications	Price (USD)
1	IMU (MPU-6050)	Sens: 131 LSBs/dps, Voltage: 2.3 - 3.4V	145.00EGP
2	Optical encoder	Max.mech.speed : 6300 rev/min, Voltage: 5V	375.00EGP

## 4 Batteries

### 4.1 Component Selection

Model	Type	Capacity	Price (USD)
1	Li-Po	11.1V, 3300mAh	1950.00EGP

## 5 Cameras

### 5.1 Component Selection

Model	Resolution	Features	Price (USD)
1	1080p	USB Interface	2444.00EGP

## 6 Microcontrollers

### 6.1 Component Selection

Model	Processor	I/O Pins	Price (USD)
Arduino nano	ATmega328P	14 Digital, 8 Analog	350.00EGP
Raspberry Pi 4	ARM Cortex-A72	40 GPIO	4500.00EGP

## 7 Chassis

As our project is lane keep, this will be the chassis used for our RC car

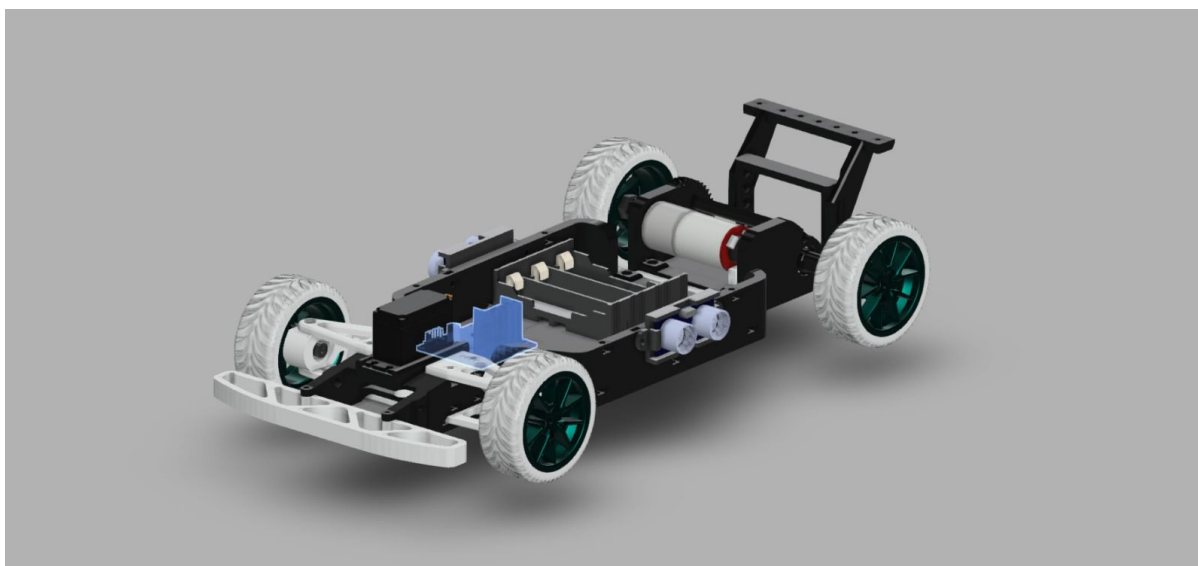


Figure 1: Ackerman like model RC car

## 8 Conclusion

This report provides an overview of the market research conducted for selecting components suitable for the project. Further modifications may be made based on implementation constraints and availability.