



RC Car Laser Tag

Team 3

Brian Wakefield

Ryan Reynolds

Olamide Olagundoye

Intro

- According to the Journal news 62 percent of gamers are over 18. The average age is 30. Over 50 percent of all Americans play video games including 19 percent of people over 50
- The objective of this project is to send signals from a controller into a micro controller (built in the remote car). The micro controller will convert the signal from analog into digital, which activates the IR cannon on the truck
- The project is divided into three parts
 - Software
 - Hardware
 - Organizing and managing
- This project is designed to provide entertainment to all ages while improving their eye and hand coordination.

Outline

- Requirements - *Olamide Olagundoye*
- Project Overview – *Brian Wakefield*
- Implementation – *Brian Wakefield*
- Design Specification / Architecture – *Brian Wakefield*
- Cost Analysis – *Ryan Reynolds*
- Schedule – *Ryan Reynolds*
- Marketing Demand – *Ryan Reynolds*

Requirements

- Relay transmission from controller to vehicle
- Transmission enables to pulse/fire IR Transmitter
- Vehicle receives IR pulse and interprets with microcontroller
- Ability to keep score with use of LEDs
- Output data via serial bus

Project Overview

Transmitter
sends out
Encoded
Signal to
activate IR
"Cannon"



IR receiver
receives the
signal

Microcontroller
Scores a hit



Micro-
controller
activates IR
transmitter

Radio receiver receives
the encoded signal



Decoder decodes the signal and
Relays it to the microcontroller

Implementation

- Build radio transmitter and receiver circuit
- Build IR transmitter (cannon) and receiver circuit
- Build LED circuit
- Interface radio transmitter and receiver circuit with microcontroller
- Interface IR transmitter (cannon) and receiver circuit with microcontroller
- Interface LED circuit with microcontroller
- Start developing code

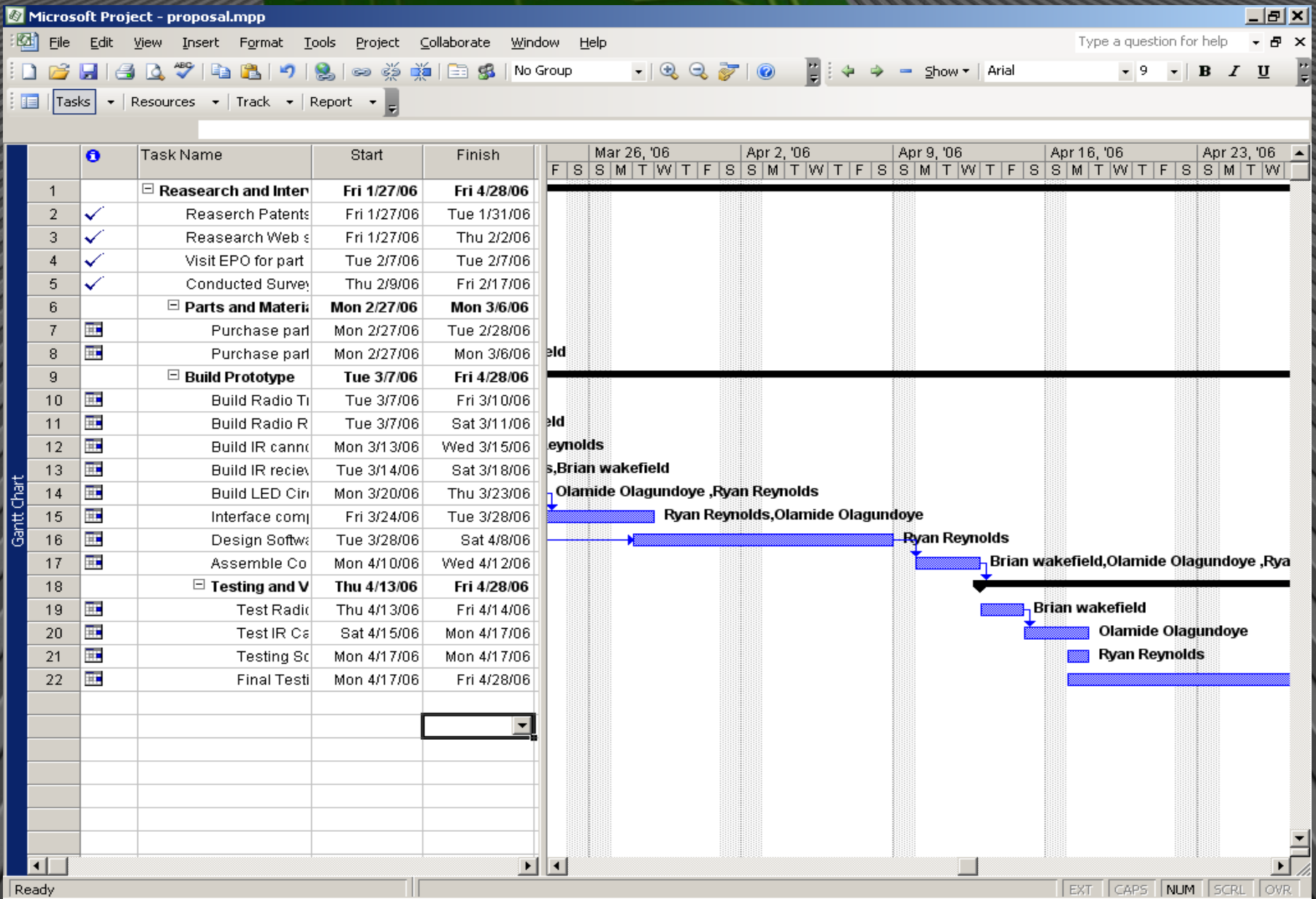
Design Specification / Architecture

- Limited space
- User friendly
- Adaptability for residential and commercial use
- Limited power

Cost Analysis

- Parts Total \$287.10
- Labor total \$13,015
- Equipment Total \$5,110
- Project Total \$18,412

Schedule



Marketing Demand

- A Survey was conducted out of 100 people.
- Would you as a customer consider buying a RC car laser tag game?

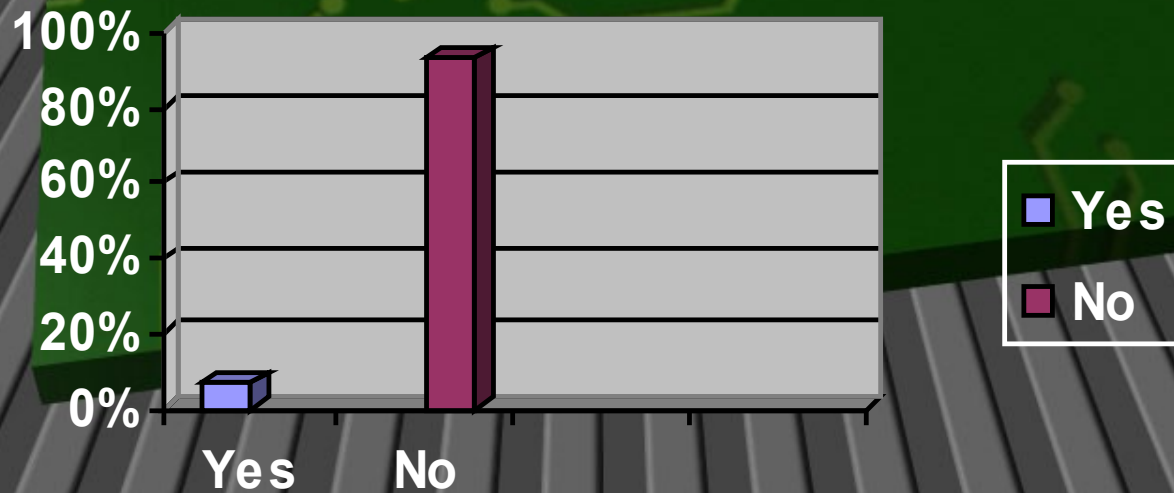
The Amount Of Customers That Consider Buying A RC Car Laser Tag Game



Marketing Demand Cont.

- **Have you ever seen a product like this before?**

The Amount Of People That Have Seen A Similar Product



Questions

