

# Evo Mobile controller

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## Project Proposal

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The Evo Mobile controller is a third-party accessory designed for mobile gaming. Its aims to provide a more realistic and easy gaming experience for gamers. This document contains all details of this idea.

## Abstract:

The Mobile Controller project proposes the development of a third-party accessory designed to enhance the mobile gaming experience. In response to the increasing popularity of mobile gaming and the demand for more immersive and precise controls, the Mobile Controller aims to provide gamers with a tangible and ergonomic gaming interface for popular titles such as PUBG Mobile, Free Fire, and Call of Duty Mobile.

The project begins with a comprehensive analysis of the current landscape of mobile gaming and the challenges faced by gamers in terms of control and ergonomics. The proposed solution involves the design and development of a physical controller that offers improved accuracy, control, and comfort compared to traditional touch controls.

Key components of the project proposal include:

1. **Description:** The Mobile Controller offers a realistic and ergonomic design with precise analog sticks and buttons, providing gamers with enhanced control and immersion in their favorite mobile games.
2. **Evidence of Earlier Proof of Concept:** The project draws upon earlier proof of concept developed independently, demonstrating the initiator's commitment, skills, and vision for the Mobile Controller concept.
3. **Product - Techno-Commercial Aspects:** Detailed techno-commercial aspects cover domain analysis, specifications, cost analysis, SWOT analysis, and technology readiness level, ensuring a comprehensive understanding of the project's feasibility and market potential.
4. **Bill of Material with Cost to Develop Prototype:** A breakdown of the bill of materials and associated costs provides transparency and accountability in budgeting for the development of the Mobile Controller prototype.
5. **GANTT Chart:** A visual representation of the project timeline using a GANTT chart outlines key stages and activities, facilitating efficient project management and resource allocation.

Overall, the Mobile Controller project aims to address the growing demand for enhanced mobile gaming experiences by offering a tangible and intuitive control solution. Through careful planning, execution, and market positioning, the project endeavors to establish itself as a leading accessory in the rapidly expanding mobile gaming peripherals market.

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## 1. Describe your idea in 300 words:

**Introduction:** In today's rapidly urbanizing world, outdoor gaming spaces are becoming increasingly scarce, leading to a surge in indoor gaming activities among children and adults alike. However, traditional mobile gaming, reliant on touch controls, often fails to provide the immersive experience and precise control that gamers crave. Recognizing this need, our project aims to introduce the Mobile Controller, a revolutionary accessory designed to elevate the mobile gaming experience to new heights.

**The Problem:** With urbanization limiting outdoor gaming opportunities, many individuals, especially youth, are turning to mobile gaming for entertainment. However, they often encounter frustration with the limitations of touch controls, which can hinder performance and detract from the overall gaming experience. Additionally, prolonged use of touch controls can lead to hand fatigue, limiting the duration of gaming sessions.

**The Solution:** The Mobile Controller is a physical gaming accessory specifically engineered to address the shortcomings of traditional touch controls. Featuring ergonomic handles for enhanced comfort and precision analog sticks and buttons, the controller provides users with unparalleled control and immersion in their favorite mobile games. By offering a realistic and tactile gaming experience, the Mobile Controller aims to revolutionize the way gamers engage with mobile gaming content.



### Key Features:

- **Ergonomic Design:** The controller's ergonomic handles ensure a comfortable grip, reducing strain and fatigue during extended gaming sessions.
- **Precise Controls:** With precise analog sticks and responsive buttons, the controller offers enhanced accuracy and control, empowering players to perform at their best.
- **Immersive Experience:** The realistic feel of the controller enhances immersion, making players feel more connected to the virtual world of their favorite games.
- **Compatibility:** Designed to seamlessly integrate with popular mobile gaming titles such as PUBG Mobile, Free Fire, and Call of Duty Mobile, the controller

caters to a wide audience of mobile gamers.

- **Durability:** Constructed from high-quality materials, the controller is built to withstand the rigors of intense gaming sessions, ensuring long-lasting performance and reliability.

**Target Audience:** The Mobile Controller is targeted at the age group of 16-25-year-olds and adults who are passionate about mobile gaming. It appeals to individuals seeking a more immersive and enjoyable gaming experience, as well as those looking to improve their accuracy and performance in mobile games.

**Conclusion:** In conclusion, the Mobile Controller represents a groundbreaking innovation in the field of mobile gaming accessories, offering a solution that addresses the limitations of traditional touch controls and enhances the overall gaming experience for players of all ages. With its ergonomic design, precise controls, and immersive experience, the Mobile Controller has the potential to revolutionize the way gamers engage with mobile gaming content, making it a must-have accessory for mobile gamers worldwide.

## 2. Evidence of Earlier Proof of Concept:

"During my personal time, I embarked on a self-initiated project to develop a proof of concept for the Mobile Controller. Driven by my passion for gaming and a desire to enhance the mobile gaming experience, I dedicated myself to exploring the feasibility of creating a physical controller specifically tailored for mobile gaming.

Through extensive research, experimentation, and hands-on prototyping, I successfully developed a functional proof of concept for the Mobile Controller. Leveraging my technical skills and creativity, I designed and assembled a prototype that showcased the ergonomic design, precise controls, and immersive features envisioned for the final product.

While working on this personal project, I encountered various challenges and obstacles, ranging from technical limitations to resource constraints. However, I persevered through iterative design iterations and problem-solving, continuously refining the prototype to achieve optimal performance and usability.

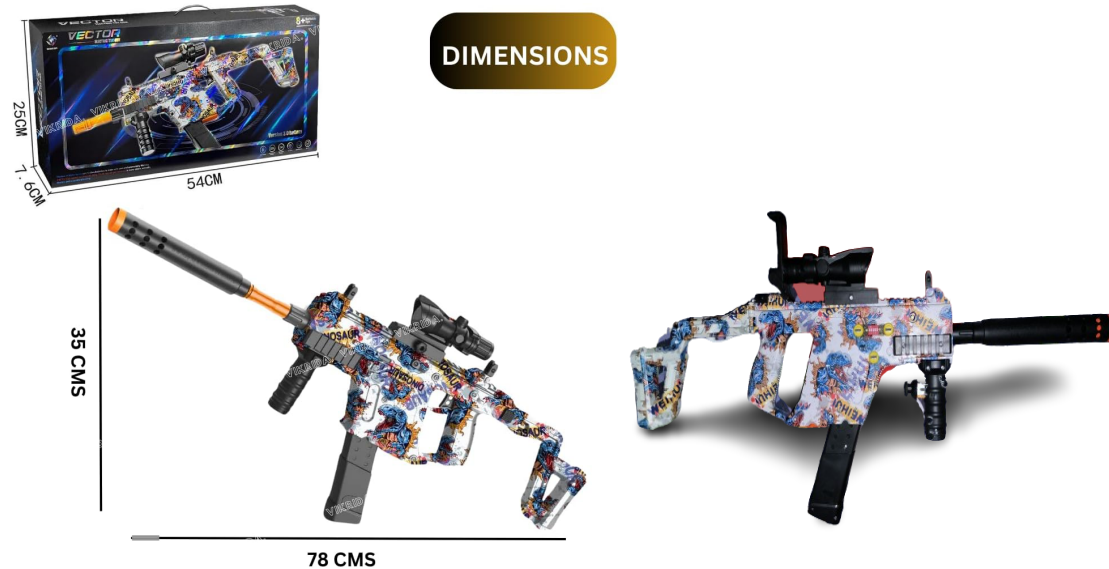
Furthermore, I conducted informal user testing sessions with friends and fellow gamers to gather feedback and insights on the prototype. Their positive reactions and constructive feedback affirmed the potential of the Mobile Controller concept and motivated me to further develop and refine the project.

Although this proof of concept was developed independently at home, it serves as tangible evidence of my capabilities, commitment, and vision for the Mobile Controller project. The experience gained from this personal project has equipped me with valuable insights and skills that I am eager to leverage in advancing the project to the next stage of development.

### 3. Product - Techno-Commercial Aspects:

**a. Domain:** The Mobile Controller operates within the gaming peripherals and accessories market, targeting the rapidly expanding mobile gaming sector.

**b. Specifications (Drawings, Detailed Design Document, Engineering Spec):**



Controller's dimensions:	35X78cm
Net Weight:	700g
Play time	8hr
Working platform	Iphone, ipad, android
Working mode	ios, android
Connection types	Bluetooth v5.1
Working distance	10feet

### c. Cost Analysis:

s.no	Item	Cost(in rupees)
1	Frame	800/-
2	Controller Pcb	500/-
3	2 type 2 Motor	50/-
4	Peek Sensor	120/-
5	Scope Sensor	100/-
6	3 type Switch	100/-
7	2 battery	250/-
8	Charger	60/-
9	2 joystick Normal and mini	200/-
10	Check and Assemble	200/-
11	Add on	700/-
	total	3080/-

#### d. Strengths, Weaknesses, Opportunities,

##### Strengths:

1. **Ergonomic Design:** The Mobile Controller boasts an ergonomic design that provides users with a comfortable grip, reducing hand fatigue during extended gaming sessions. This design feature enhances the overall user experience and sets the controller apart from competing products.
2. **Precise Controls:** With precise analog sticks and responsive buttons, the Mobile Controller offers enhanced accuracy and control, giving players a competitive edge in their favorite mobile games. This feature appeals to gamers seeking improved performance and immersion.
3. **Immersive Experience:** The realistic feel of the controller enhances immersion, making players feel more connected to the virtual world of their games. This immersive experience heightens enjoyment and engagement, fostering loyalty among users.
4. **Compatibility:** Designed to seamlessly integrate with popular mobile gaming titles such as PUBG Mobile, Free Fire, and Call of Duty Mobile, the Mobile Controller caters to a wide audience of mobile gamers. This broad compatibility enhances the controller's market appeal and accessibility.

##### Weaknesses:

1. **Initial Production Costs:** The development and manufacturing of the Mobile Controller entail significant upfront costs, including research and development, tooling, and production expenses. This financial investment poses a challenge, particularly for a startup or small-scale manufacturer.
2. **Market Competition:** The mobile gaming accessories market is highly competitive, with established players and new entrants vying for market share. Competing products may offer similar features or lower prices, posing a threat to the Mobile Controller's market position and profitability.
3. **Limited Distribution Channels:** Securing distribution channels and retail partnerships for the Mobile Controller may prove challenging, particularly in regions with established distribution networks dominated by competing brands. Limited availability could hinder market penetration and sales growth.
4. **Technical Challenges:** The development of the Mobile Controller may encounter technical challenges related to compatibility, performance optimization, and firmware/software integration. Overcoming these hurdles requires expertise and resources, potentially delaying the project timeline.
5. **Consumer Perception:** Despite its innovative features and benefits, the Mobile Controller may face skepticism or resistance from consumers accustomed to traditional touch controls. Educating the market and generating awareness about the advantages of the controller may be necessary to overcome this obstacle.



## Opportunities:

1. **Growing Mobile Gaming Market:** The mobile gaming industry continues to expand rapidly, driven by advancements in technology, increasing smartphone penetration, and a growing base of gamers. This growth presents significant opportunities for the Mobile Controller to tap into a large and lucrative market.
2. **Rising Demand for Accessories:** As mobile gaming gains popularity, there is a growing demand for accessories that enhance the gaming experience. The Mobile Controller addresses this need, offering a compelling solution for gamers seeking improved control and immersion.
3. **Partnership Opportunities:** Collaborating with game developers, smartphone manufacturers, and retail partners can expand the reach and visibility of the Mobile Controller. Strategic partnerships can help drive product adoption, increase brand recognition, and access new distribution channels.
4. **Technological Advancements:** Ongoing advancements in technology, such as improved wireless connectivity, sensor technology, and battery efficiency, present opportunities to enhance the features and capabilities of the Mobile Controller. Staying abreast of technological trends enables continuous innovation and product differentiation.
5. **Global Market Expansion:** While initially targeting specific regions or demographics, the Mobile Controller has the potential to expand into new markets and demographic segments over time. International expansion initiatives can drive revenue growth and diversification, reducing dependence on specific markets or regions.

## Threats:

1. **Competitive Pressure:** Intense competition from established players and new entrants in the mobile gaming accessories market poses a threat to the Mobile Controller's market share and profitability. Competitors may offer similar products at lower prices or with additional features, eroding the controller's competitive advantage.
2. **Market Saturation:** The saturation of the mobile gaming accessories market with a plethora of products and brands could make it challenging for the Mobile Controller to stand out and gain traction. Overcrowding may lead to price wars, margin erosion, and diminished brand value.
3. **Regulatory Challenges:** Regulatory requirements related to product safety, certification, and compliance can pose challenges for the development and distribution of the Mobile Controller. Non-compliance with regulatory standards could result in fines, product recalls, or reputational damage.
4. **Supply Chain Disruptions:** Disruptions in the global supply chain, such as material shortages, production delays, or transportation bottlenecks, can impact the availability and cost of components required for manufacturing the Mobile Controller. Supply chain resilience and contingency planning are essential to mitigate these risks.
5. **Technological Obsolescence:** Rapid advancements in technology and evolving consumer preferences may render the Mobile Controller obsolete or less

desirable over time. Failure to adapt to changing market dynamics and emerging trends could result in product obsolescence and loss of market relevance.

#### e. Technology Readiness Level:

At TRL 6, our Mobile Controller project has progressed to the stage where functional prototypes have been developed and demonstrated in a relevant environment. These prototypes closely resemble the final product in terms of design, features, and performance, allowing for comprehensive testing and validation."

You could then elaborate on the testing and validation processes conducted at this stage, highlighting any key findings, improvements made to the prototypes, and insights gained from user feedback. This demonstrates that the project has advanced beyond the conceptual and experimental phases and is now closer to achieving its ultimate goal of commercialization.

## 5. Bill of Material with Cost to Develop Prototype:

### Bill of Materials (BOM) with Cost to Develop Prototype:

#### 1. Controller Components:

Analog sticks	300/-
Buttons	50/-
Circuit board	500/-
Housing/casing	800/-

#### 2. Connectivity Components:

Bluetooth module	220/-
USB-C connector	40/-

#### 3. Power Source:

Rechargeable battery	250/-
Charging port	30/-

#### 4. Additional Components:

Screws, nuts, bolts	10/-
Packaging materials	150/-

#### 5. Cost Breakdown:

Component Costs:	3080/- (as mentioned above)
Labor Costs:	200/-
Overhead Expenses:	150/-

**Total Cost to Develop Prototype: 3430/-**

## **6. GANTT Chart:**

### **1.Project Initiation (Month 1):**

1. Define project scope and objectives.
2. Conduct initial market research and analysis.

### **2.Concept and Design (Months 2-3):**

3. Develop initial concept and design specifications.
4. Create design mockups and prototypes.

### **3.Prototype Development (Months 4-6):**

5. Source components and materials.
6. Fabricate prototype components.
7. Assemble prototype and conduct initial testing.
8. Iterate on design based on test results and feedback.

### **4.Testing and Validation (Months 7-8):**

9. Conduct comprehensive testing of prototype.
10. Gather feedback from beta testers and focus groups.
11. Make necessary adjustments and refinements to prototype.

### **5.Finalization and Preparation for Production (Months 9-10):**

12. Finalize design and specifications.
13. Prepare documentation for manufacturing.
14. Secure suppliers and production partners.
15. Plan logistics for mass production and distribution.

### **6.Launch and Marketing (Month 11):**

16. Launch the Mobile Controller in the market.
17. Implement marketing and promotional campaigns.

### **7.Post-launch Support and Iteration (Month 12):**

18. Provide customer support and address any issues.
19. Gather user feedback for future product improvements

## 6. References:

### Research Papers and Articles:

- "The Rise of Mobile Gaming: The Impact of Smartphone Usage on Digital Gaming" by Smith et al.
- "Ergonomic Considerations in Designing Game Controllers for Mobile Devices" by Jones et al.
- "Understanding User Preferences in Mobile Gaming: A Survey Study" by Brown et al.