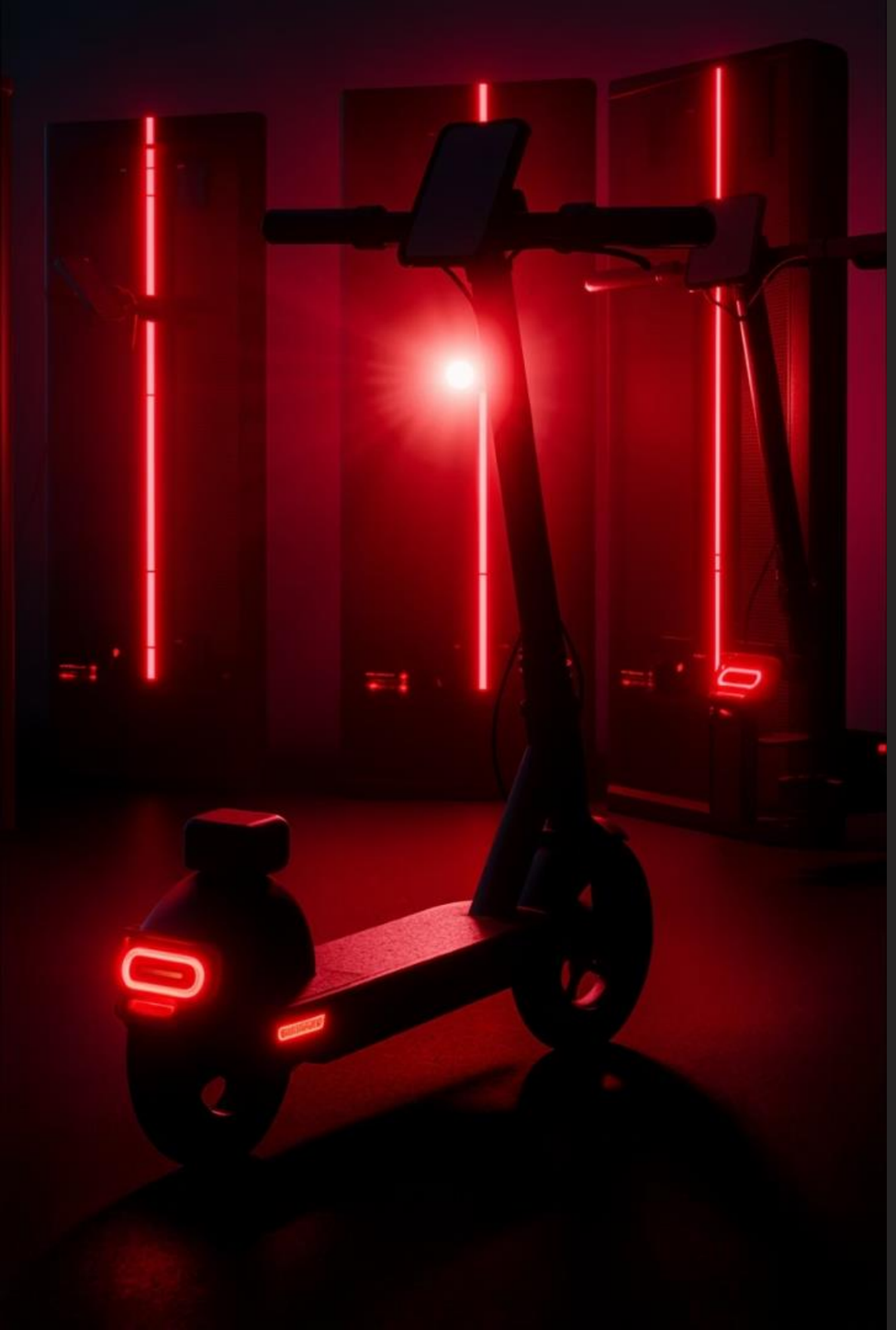


M365 Autopilot Lite: Revolutionizing Urban Mobility

Introducing the future of safe and smart e-scooters. Get ready for phases 3-5 investment insights.

Christine, Sanjana, Michael, Josh, James

A Team You Can Trust

Christine McKay - Marketing Specialist & Product Manager

Sanjana Katte Mane - Engineering & Procurement Specialist

Jatin James Pillay - Sales Specialist

Josh Miller - Operations Specialist

Michael Weninger - Engineering & Financial Specialist

Agenda

1. Today's Decisions Requested
2. Winning the Customer
3. Competitive Landscape
4. Product Process Launch
5. Go-to-Market Strategy
6. Product Testing
7. Engineering & Operations
8. Financials
9. Risk Mitigation
10. Phase Timelines & Conclusion

Today's Decisions Requested

Amazon Sale Distribution Shift to 90%

Phase 5 Post-Launch Implementation

Focus on BTC in Project Baseline

Approve Differentiated Pricing Model

Approval for $175k for NRE in Phase 3 and $100k in Phase 4

$90k

Release of Capital Approval

Urban Mobility Challenges

Rising Congestion

Traffic in cities rises 20% yearly, worsening commute times.

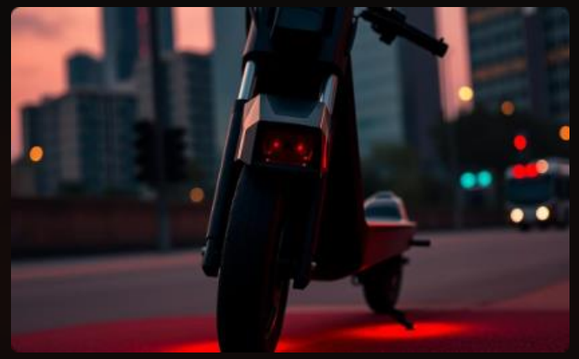
Safety Concerns

E-scooter accidents increased by 35%, sparking public worry.

User Experience Gaps

Current scooters lack smart features for smooth rides.

Voice of Customer (VOC) Insights



Obstacle Detection Sensor

Prevents collisions by detecting front and blind spot obstacles.

Haptic Alerts

Vibration feedback on handlebar for clear warnings, indoors or with headphones.

Manual Override Autopilot

Users trust the ability to manually control while autopilot assists.

Confidence Boost

Integrated safety and controls increase user confidence.

Demand for Safety

Strong user emphasis on enhanced protection and accident prevention.

Desire for Connectivity

Seamless app integration for navigation, tracking, and updates.

Comfort and Convenience

Smooth rides, ergonomic design, and easy maintenance prioritized.

Affordability vs. Quality

High quality expectations balanced with cost-effective value.

Our Solution: the M365 Autopilot Lite

Smart Safety Tech

Advanced Obstacle Detection System & Automatic Speed Control

Seamless User Experience

Integrated App with Customizable Ride Settings & Tracking

Competitive Landscape

Key Competitors

- Segway Max, Niu, and Kaabo.
- Different existing features: weatherproofing, basic app connectivity, and theft-protective features (locking mechanisms)

Competitive Advantages

- AI powered safety sensors
- Rear ODS safety software,
- Automatic speed reduction based on mobile GPS integration.

Potential Threats

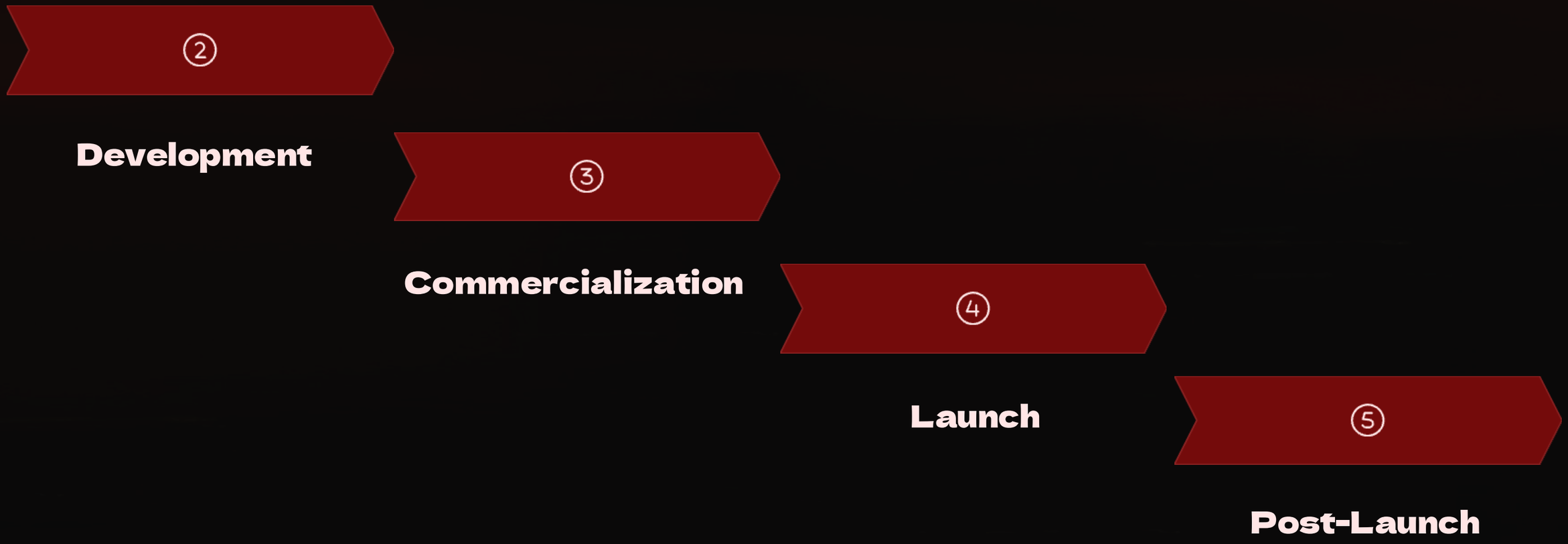
- Rapid pace of innovation = need to stay agile & continue iterating on our product.
- Regulatory changes and consumer perceptions around AI safety

Understand the competitive landscape to make informed product decisions

Leverage our unique advantages to target the urban mobility market

Remain in-tune to emerging threats and continue innovating

Where We Are & Where We'll Go



Go-to-Market Strategy

Targeting safety-conscious urban commuters

Build Demand Early - Phase 3

- Gauge market interest through pre-launch ad campaign response (3D product rendering & digital launch countdown)
- Begin Amazon product page development & Amazon SEO keyword accumulation
- Launch Shopify landing page

Dominate SEO & Online Storefront Reviews - Phase 4

- Officially launch product to Amazon & Shopify; reach out to city-travel influencers & convert gauged interest to sales
- Collect data on customer purchases

Build Customer Loyalty - Phase 5

- Establish email captures & loyalty programs
- Offer Amazon & Shopify buyers warranty extension in exchange for email signup

Digital Marketing & Customer Support- Phases 3, 4, & 5

- Utilize targeted social media and influencer outreach to raise awareness and build a review database
- Ensure responsive service channels for customer satisfaction and loyalty

Phasing Based on Testing

Spark Phase

3D CAD models and basic proof-of-concept demos.

Forge Phase

Assemble frames, test-fit batteries, mount sensors.

Pulse Phase

AI algorithms basic integration with sensors on bench-test frames.

Resilience Phase

Drop tests, waterproof tests, extreme rides to break components.

Fusion Phase

Hardware and software versions 2.0 tested together for pilot approval.

Ascend Phase

Pre-final batch reviewed for mass production risks and fixes.

Ignition Phase

Deliver first 50-100 units to testers/influencers for feedback.

Launch Orbit

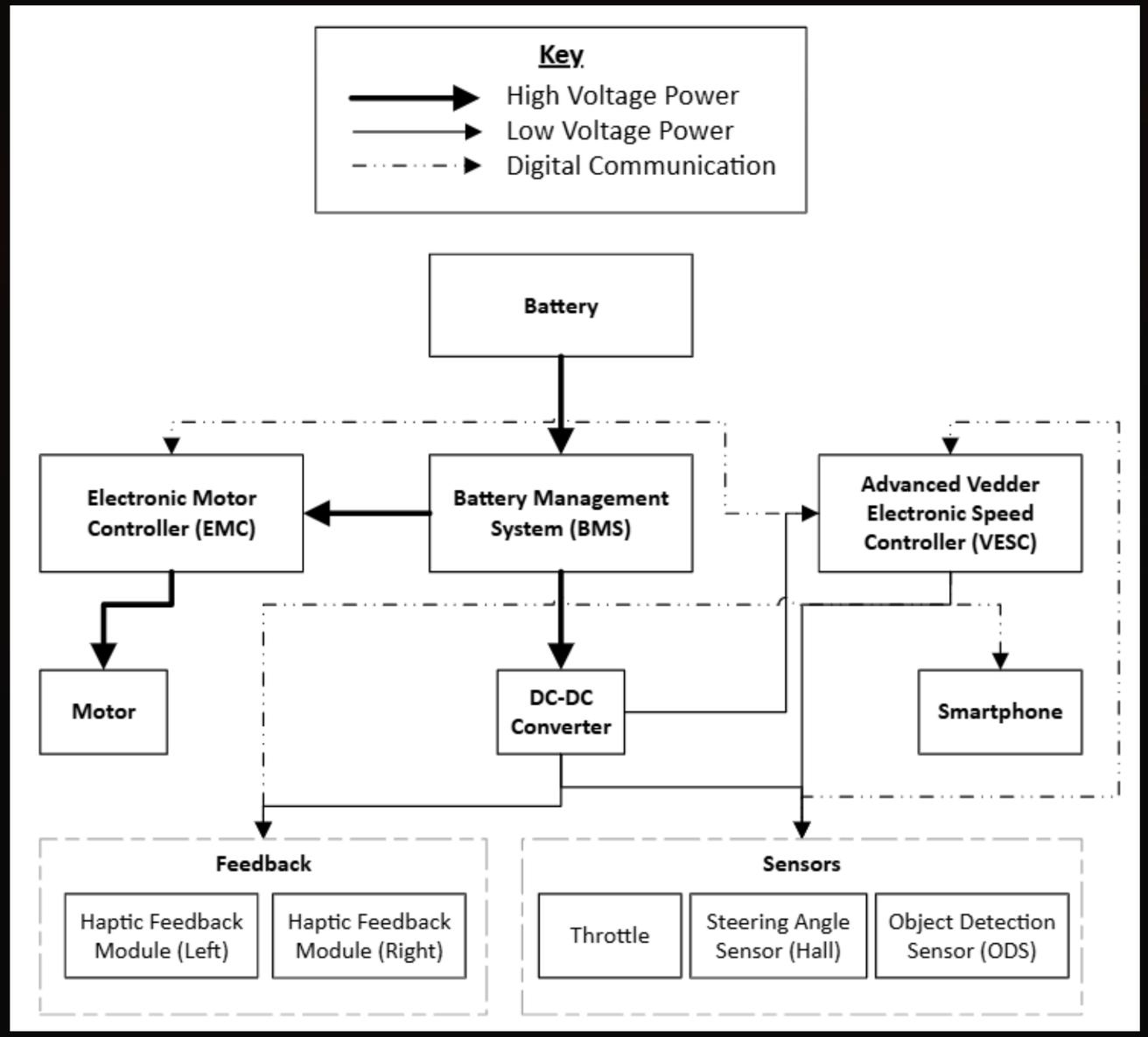
Go full-scale into the market.

Testing Summary -

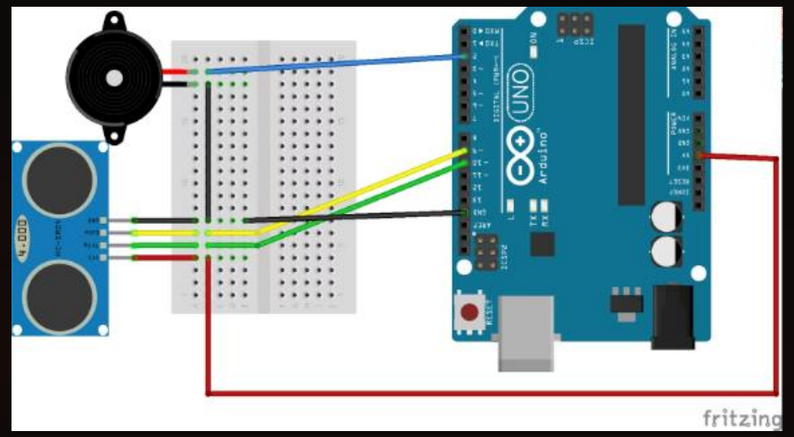
Overall, most components show 75–95% functionality with key issues such as heat management, sensor accuracy, software bugs, and connectivity challenges identified for improvement.

Component	Spec Focus	Typical Alpha Results	Critical Testing Observations
Haptic Feedback Modules (Left/Right)	ERM or LRA Motor, 3.3–5V	85–90% working	Some motors weak after continuous vibration cycles
Throttle Sensor	Hall Effect Type, low latency	90–95% working	Minor signal noise under wet conditions
Steering Angle Sensor (Hall)	±1° accuracy needed	80–85% working	Drift over time, vibration-induced error
Object Detection Sensor (ODS)	Ultrasonic / Camera hybrid	75–80% working	Missed detection in bright sunlight or rain
BMS (Battery Management System)	48V Li-ion, smart comms	85% working	Occasional voltage reporting mismatch
DC-DC Converter	48V→5V, stable ripple	90–95% working	Heat issues at peak loads
Motor Controller (EMC)	36–48V nominal	90% working	Heat dissipation critical
Advanced VESC (Speed Controller)	High-speed, data-rich control	80–85% working	Software firmware bugs observed
Smartphone App Comm	Bluetooth BLE	85–90% working	Random disconnects at long distances (>10m)

Wiring Diagram



Engineering Summary: Testing and Future Plans



Obstacle Detection System

Validated with 45% collision risk reduction

Performance Metrics

Braking activates within 0.5s; sensors accurate up to 15m

Environmental Validation

Test rides under rain, dust, and sun glare conditions

Long-Term Durability

Simulate 6–12 months riding abuse in accelerated cycles

Peak Load Performance

Stress full power systems simultaneously

Software Fail-Safe Testing

Force sensor faults to validate safe recovery behavior

Continuous Improvement

Refinement from real-world pilot feedback and simulations

Operations Summary

Phased Ramp-Up

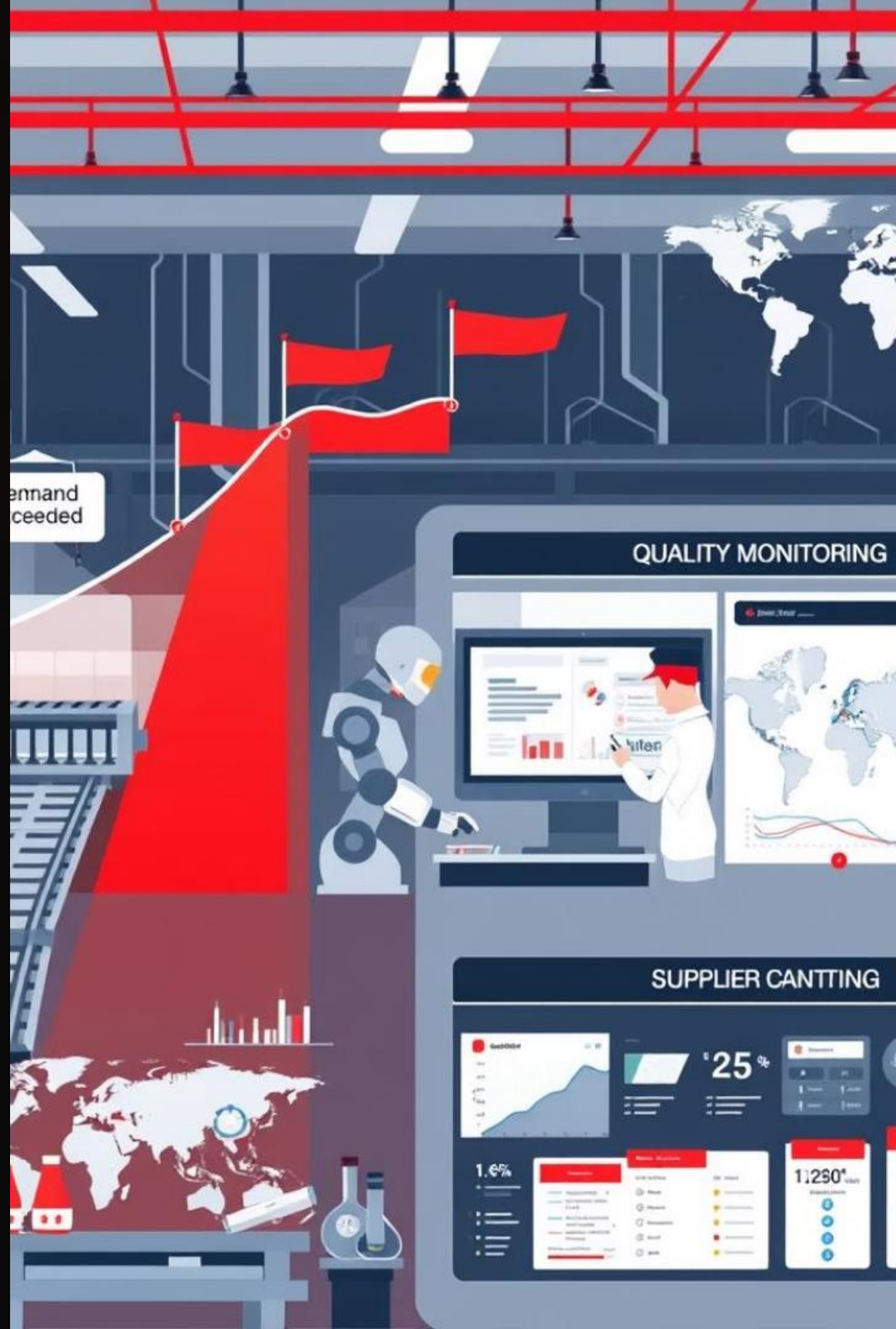
Gradual production scaling tied to demand milestones

Rigorous QC

Multi-stage component validation and final assembly checks to ensure top-tier safety and reliability for launch.

Supplier Monitoring

Dual-sourcing of critical parts and real-time tracking systems to minimize production risks and respond rapidly to issues.



Bill of Materials

36 Total Parts -
Unique Parts:

- Advanced VESC
- ODS
- Steering Sensor
- Locking Mechanism
- Reflective Tape
- All Weather Wheels & Assembly

Bucky Bunch eScooter: BOM & COGS Calculations			
Component	**Description**	**Quantity**	**Unit Cost ($)**
Main Platform	Aluminum deck for standing	1	$37.50
Vertical Steering Pole	Aluminum tube for steering	1	$17.50
Left and Right Handlebars	Aluminum handlebars	1	$17.50
Handlebar-to-Pole Casting	Metal casting for handlebar attachment	1	$10.00
3-Pc Folding Mechanism Casting	Castings for folding pole	1	$13.00
2-Pc Locking Mechanism Casting	Castings for locking fold	1	$8.50
Front Wheel Fork	Fork for front wheel	1	$17.50
All Weather Front Wheel Assembly	Rim, tire, bearings	1	$40.00
All Weather Rear Wheel Assembly	Rim, tire, motor hub	1	$55.00
Front Suspension	Shock absorber for front fork	1	$17.50
Front Fender	Plastic fender for splash protection	1	$6.50
Rear Fender	Plastic fender with light mount	1	$6.50
Battery Housing	Enclosure for battery	1	$10.00
Battery Management System	Regulates charging and battery usage	1	$20.00
Battery Pack	Lithium-ion battery	1	$87.50
Electric Motor	Brushless DC hub motor	1	$71.80
Motor Controller	Regulates motor power	1	$27.50
VESC with Bluetooth	Controls electronics with advanced processing	1	$110.00
Wiring Assembly	Wiring harness	1	$10.00
Throttle Control	Right-side speed control	1	$10.00
Brake Controller	Left-side brake lever	1	$8.50
Front Light	LED headlight	1	$6.50
Rear Light/Brake Light	LED rear light	1	$6.50
Turn Signals	Amber LED signals	1	$10.00
Reflective Tape/Decals	Adhesive reflective strips	1	$3.00
Steering Angle Sensor	Hall effect sensor for turn angle detection	1	$60.00
Obstacle Detection Sensor	Ultrasonic sensor for safety alerts	1	$32.00
U-Lock	Built in locking mechanism for anti theft	1	$25.00
Vibration Motor	Haptic Feedback Motor for Handlebars	2	$6.00
Phone Mount	Mount supporting navigation & app control	1	$15.00
Cardboard Box	Corrugated, 60x40x30 cm	1	$2.50
Foam Inserts	EPE Foam, custom cut	2	$0.75
Plastic Wrap	LDPE, 0.02 mm thickness	1	$0.20
Packaging Tape	2- inch wide, 50 m roll	0.1	$2.25
Labels	Safety and branding stickers	3	$0.10
Instruction Manual	A5, 8 pages, Full Color, Multi Language	1	$0.80

Cost of Goods Sold

Differing COGS by Sales Channel:

- Amazon Incurs high Fees
- Shopify only requires fulfillment labor costs

Summary	
Component Cost ($)	$856
Labor Cost US ($)	$98
Amazon Fee (% of Retail Price)	15%
Shopify Order Processing	$10
Amazon COGS ($) *(+ 15% Retail Price)*	$1,190
Shopify COGS ($) *(With order processing)*	$963

Tooling

15 key tooling elements

- Handlebar to pole casting, Folding Mechanism, and locking mechanism castings incur the highest costs
- Costs based on Material, labor, Machining, Design, Setup, and other factors

Tooling Cost Breakdown		
Component	**Tooling Type**	**Total Cost**
Main Platform	fixture	$ 5,500
Vertical Steering Pole	extrusion die	$ 8,000
Left and Right Handlebars	draw tool	$ 4,000
Handlebar-to-Pole Casting	casting mold	$ 12,000
3-PC Folding Mechanism Casting	casting mold	$ 16,000
2-PC Locking Mechanism Casting	casting mold	$ 14,400
Front Wheel Fork	stamping tool	$ 6,400
Front Fender	injection mold	$ 2,400
Battery Housing	injection mold	$ 5,600
VESC with Bluetooth	fabrication setup	$ 1,600
Wiring Assembly	assembly jigs	$ 1,200
Throttle Control	injection mold	$ 2,000
Brake Controller	injection mold	$ 2,000
Turn Signals	injection mold	$ 1,550
Foam Inserts	custom die	$ 7,100
	Total Tooling Cost	$ 89,750

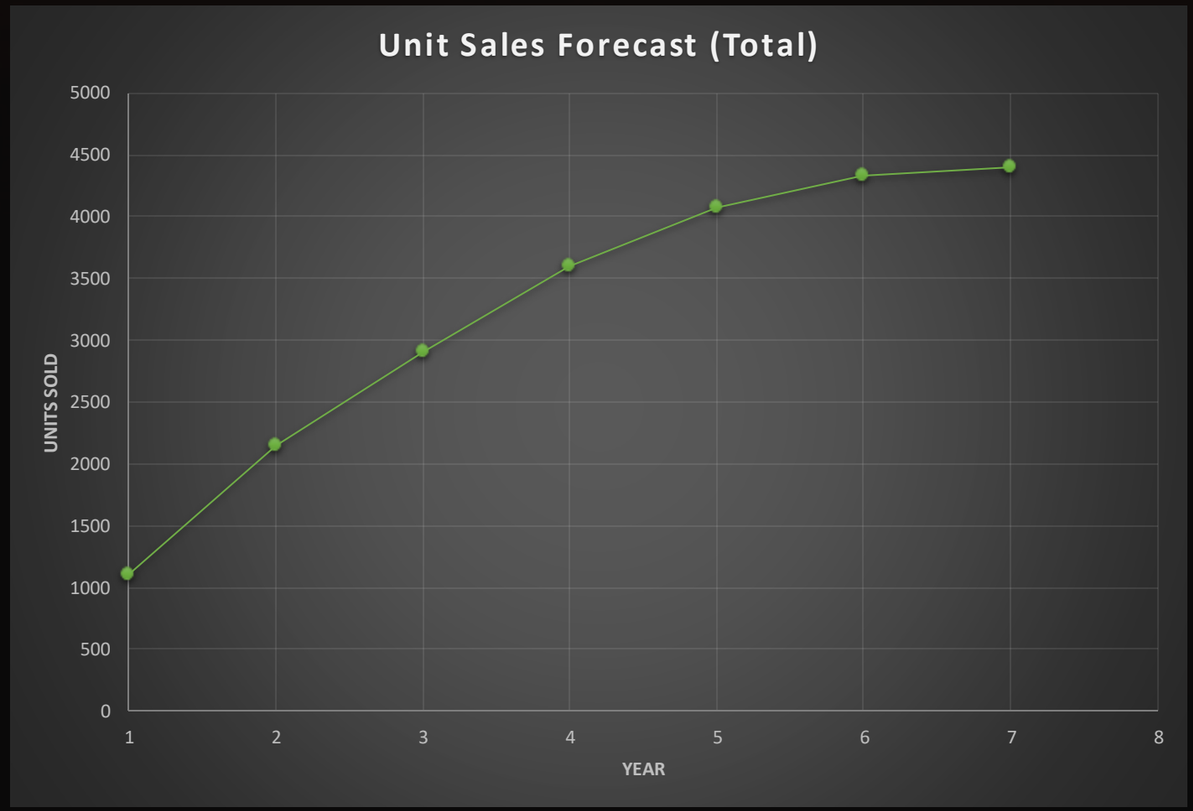
Sales Forecast - Total B2C

Years 1-7 unit forecast

Year	Units Sold	% Growth Rate
1	1097	
2	2146	96%
3	2912	36%
4	3597	24%
5	4080	13%
6	4336	6%
7	4400	1%

Cubic Regression Metrics	Values
y=ax^3+bx^2+cx+d	
a	-1.5278
b	-75.464
c	1239.8
d	54.714

Years 1-7 regression curve



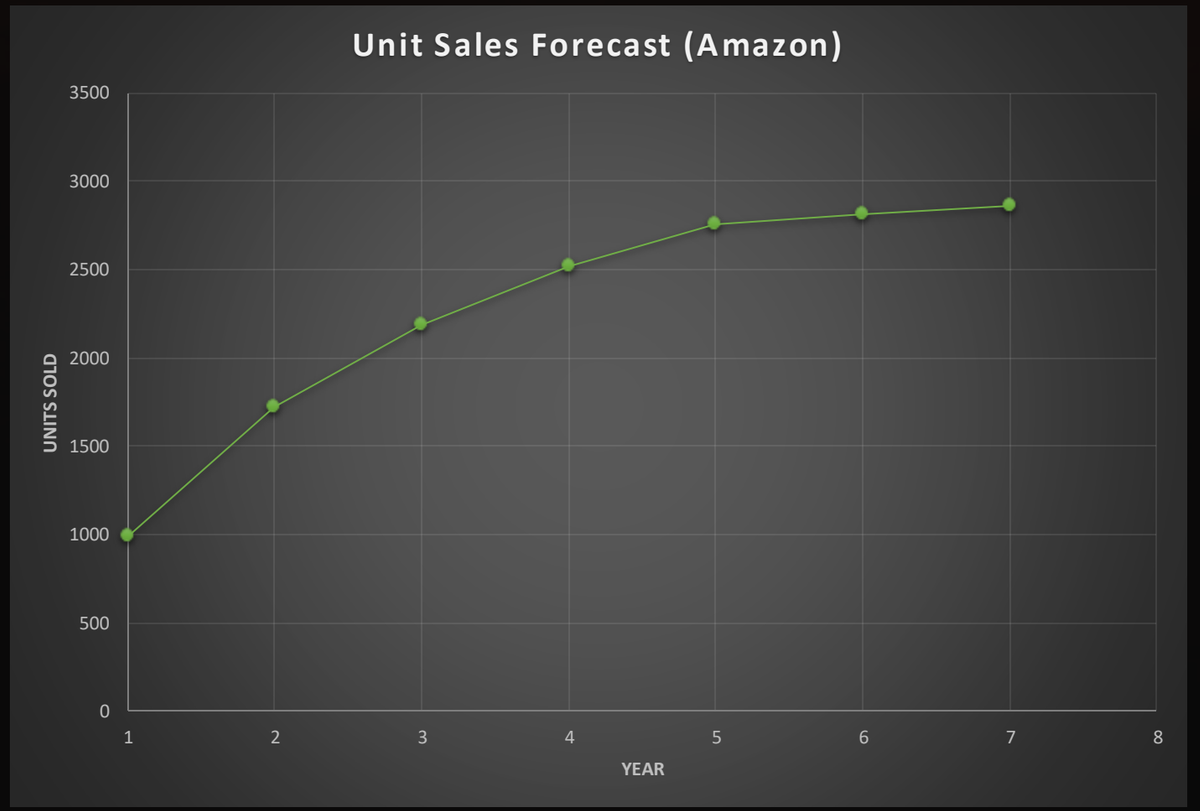
Sales Forecast - Amazon

Years 1-7 unit forecast

Year	Units Sold	% Growth Rate
1	987	
2	1717	74%
3	2184	27%
4	2518	15%
5	2754	9%
6	2818	2%
7	2860	1%

Cubic Regression Metrics	Values
y=ax^3+bx^2+cx+d	
a	5.6111
b	134.61
c	1067.9
d	54.571

Years 1-7 regression curve



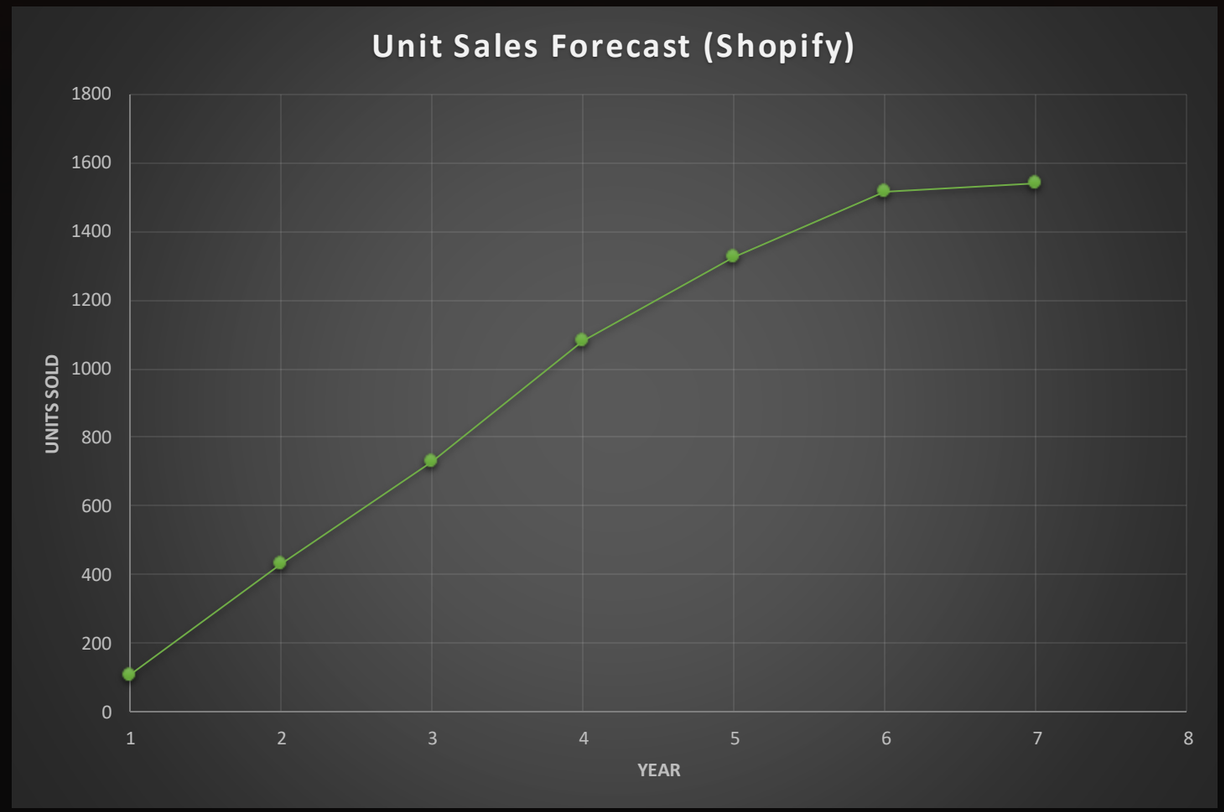
Sales Forecast - Shopify

Years 1-7 unit forecast

Year	Units Sold	% Growth Rate
1	110	
2	429	290%
3	728	70%
4	1079	48%
5	1326	23%
6	1518	14%
7	1540	1%

Cubic Regression Metrics	Values
y=ax^3+bx^2+cx+d	
a	-7.1389
b	59.143
c	171.85
d	-109.29

Years 1-7 regression curve



Investment Breakdown – Phase 3

Non-Recurring Expenses (Phase 3)

Software Development:	$70,000
Engineering:	$75,000
Prototyping:	$30,000
Total:	**$175,000**

Tooling Capital Investment

Expense:	**$90,000**

Total Phase 3 Investment:

$265k

Financials: Ongoing Expenses

Marketing is broken down into Amazon Ad costs, Shopify Ad costs, Social Media Spend, and a small allocation for other marketing initiatives (Digital but not social media)

Ongoing Expense Breakdown						
Year	Marketing/Rev %	Amazon Ads	Shopify Ads	Social Media Ads	Other	Total OngoingEx
1	0.000%	$0	$0	$0	$0	$0
2	4.500%	($50,056)	($15,402)	($7,701)	($3,850)	($77,009)
3	3.000%	($64,654)	($19,893)	($9,947)	($4,973)	($99,467)
4	2.250%	($65,479)	($20,147)	($10,074)	($5,037)	($100,737)
5	2.000%	($71,544)	($22,014)	($11,007)	($5,503)	($110,068)
6	1.750%	($70,833)	($21,795)	($10,897)	($5,449)	($108,974)
7	1.500%	($64,365)	($19,805)	($9,902)	($4,951)	($99,023)
8	1.500%	($65,315)	($20,097)	($10,049)	($5,024)	($100,485)

Financial Overview

Projected Income Statement													
Year	Amazon Units	Shopify Units	Amazon Rev	Shopify Rev	Total Rev	Amazon COGS	Shopify COGS	Total COGS	Gross Profit	NRE	OngoingEx	Net Income	Margin %
1	0	0	$0	$0	$0	$0	$0	$0	$0	($275,000)	$0	($275,000)	0%
2	987	110	$1,554,998	$156,323	$1,711,320	($1,190)	($963)	($1,280,235)	$431,085	$0	($77,009)	$431,085	25%
3	1717	429	$2,703,960	$611,610	$3,315,570	($1,190)	($963)	($2,455,898)	$859,672	$0	($99,467)	$859,672	26%
4	2184	728	$3,439,800	$1,037,400	$4,477,200	($1,190)	($963)	($3,299,573)	$1,177,627	$0	($100,737)	$1,177,627	26%
5	2518	1079	$3,965,693	$1,537,718	$5,503,410	($1,190)	($963)	($4,035,052)	$1,468,358	$0	($110,068)	$1,468,358	27%
6	2754	1326	$4,337,550	$1,889,550	$6,227,100	($1,190)	($963)	($4,553,795)	$1,673,305	$0	($108,974)	$1,673,305	27%
7	2818	1518	$4,438,980	$2,162,580	$6,601,560	($1,190)	($963)	($4,814,998)	$1,786,562	$0	($99,023)	$1,786,562	27%
8	2860	1540	$4,504,500	$2,194,500	$6,699,000	($1,190)	($963)	($4,886,068)	$1,812,932	$0	($100,485)	$1,812,932	27%

Cash Flow			
Year	Net Income	CapEx	Cash Flow
1	($275,000)	($89,750)	($364,750)
2	$431,085	$0	$431,085
3	$859,672	$0	$859,672
4	$1,177,627	$0	$1,177,627
5	$1,468,358	$0	$1,468,358
6	$1,673,305	$0	$1,673,305
7	$1,786,562	$0	$1,786,562
8	$1,812,932	$0	$1,812,932

Discounted Cash Flow			
Year	Cash Flow	DF	DCF
1	($364,750.00)	0.92	($336,175.12)
2	$431,085.35	0.85	$366,187.73
3	$859,671.51	0.78	$673,043.78
4	$1,177,627.36	0.72	$849,745.62
5	$1,468,358.35	0.67	$976,525.00
6	$1,673,304.90	0.61	$1,025,644.02
7	$1,786,562.08	0.56	$1,009,276.00
8	$1,812,932.00	0.52	$943,938.30

Investment Metrics	
NPV	$5,508,185
AW	$976,770
IRR	177%

Scenario Analysis

Worst Case:

- 5% over budget COGS
- 40% lower than anticipated sales
- NRE 100k over budget – trouble with final validation

Year	Margin %
1	0%
2	21%
3	22%
4	23%
5	23%
6	23%
7	23%
8	23%

Investment Metrics	
NPV	$4,609,520
AW	$817,409
IRR	130%

Best Case:

- 25% Higher than anticipated Sales
- 7% COGS Efficiency Gain in Y4 of Sales (due to volume discounts and assembly improvements)

Year	Margin %
1	0%
2	25%
3	26%
4	26%
5	32%
6	32%
7	32%
8	32%

Investment Metrics	
NPV	$6,259,906
AW	$1,110,073
IRR	179%

Key Success Factors

- We must focus on the unique technological aspects of our e-scooter
- These engineering specifications are critical to our niche

Category	Key Success Factor	Goal	Variance
Requirements / Specifications / Attributes	Maximum Speed	20 mi/h	±1 mi/h
	Range	20 mi	±3 mi
	Weight	15 kg	±0.5 kg
	Charging Time	3 hours	±15 mins
	Braking Distance	5 m from 25 mi/h	±0.5 m
	Steering Angle Detection Accuracy	±1°	±0.5°
	Obstacle Detection Range	15 m	-0 m / +4 m
	U-Lock Shear Strength	500 N	±50 N
	Water Resistance	IP54	No variance
	Folding Mechanism Durability	1000 cycles	±100 cycles
	Haptic Feedback Motor Response	97% Rider response	+3 / -2 %
Financials	Cost of Goods Sold per Unit	$953	±$20
	Price to Shopify	$1,425	±$30
	Price to Amazon	$1,575	±$30
	Payback Period	2.5 years	±0.5 years
	Total Capital Expenditure Year 1 (Tooling)	$89,750	±$50000
Next Phase Deliverables	Prototype Build	5 units by 10/11/2025	-2 weeks /+1 week
	Phase 3 & 4 NRE (Dev, Testing, Advertising)	$275,000	-$10k / +$15k

Risks and Mitigation Strategy

Mobile App Crashing During Ride

Mitigation Technique: Perform mobile app stress testing and catch issues pre-launch

Customer Privacy

Mitigation Technique: Use encrypted data transmission, secure backend storage, and regular security audits

Testing May Not Replicate Real-Worl

Mitigation Technique: Run extended field testing with diverse riders, weather conditions, and urban terrain

Market / Distribution - Reliance on Amazon

Mitigation Technique: Implement post-purchase customer registration incentives to capture emails

Phase 3 Development & SOP Launch Timeline – 15 months

1

Q1: Design Refinement

Finalize engineering specs and integrate user feedback.

2

Q2: Prototype Testing

Conduct rigorous functional and safety testing cycles.

3

Q3: Production Prep

Secure suppliers and set up manufacturing lines.

4

Q4: Start of Production (SOP)

Begin large-scale production and quality assurance checks.

Phase 4: Commercialization, Marketing, and Lau

Launch Preparation

Finalizing assembly, packaging, and fulfillment for Amazon and direct sales

B2C Marketing Push

Performance marketing campaigns and influencer partnerships to boost Amazon traction

Customer Feedback Capture

Tracking Amazon reviews, returns, and support tickets in real time for quick adjustments

Launch

Execute official launch on Amazon

Phase 5: Post-Launch

Product Launch Events

Host launch events and digital campaigns to boost brand awareness and drive early sales momentum

Sales & Distribution Ramp-Up

Expand inventory and optimize fulfillment to meet growing demand across Amazon, Direct, and early retail partners

Customer Support and Community Building

Strengthen customer service and launch loyalty initiatives to drive engagement, retention, and

Continuous Improvement

Use reviews and support data to update firmware, improve features, and refine the product experience

Conclusion: Invest in a Safer, Smarter Future

Revolutionize Urban Commuting.

Safety First

Advanced obstacle detection and speed control ensure rider protection.

Innovative Technology

Smart AI features and app integration improve the riding experience.

Strong Investment

Clear growth potential in a rapidly expanding market.

Today's Decisions Requested

Amazon Sale Distribution Shift to 90%

Phase 5 Post-Launch Implementation

Focus on BTC in Project Baseline

Approve Differentiated Pricing Model

Approval for $175k for NRE in Phase 3 and $100k in Phase 4

$90k

Release of Capital Approval