



From Left to Right:

Khwaje

Swaraj

Joseph

Aletha

Daniel (a.k.a Bombshell Worldwide)

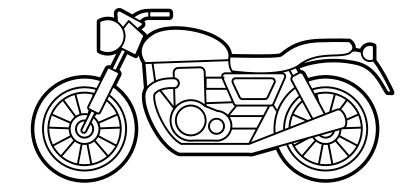
Emmanual

Moses

Harrison

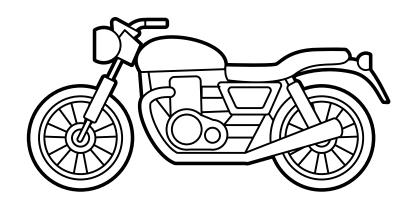
Bryan





Boda Boda "Taxis" for Transportation

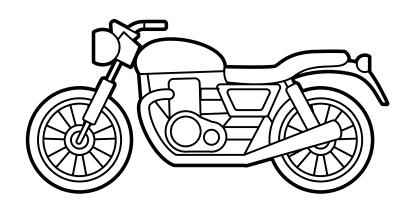
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Boda Boda "Taxis" for Transportation



Aid Delivery



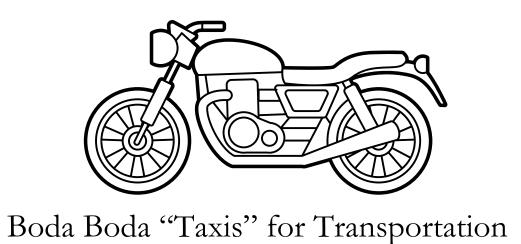
Boda Boda "Taxis" for Transportation



Aid Delivery



Major Source of Livelihood





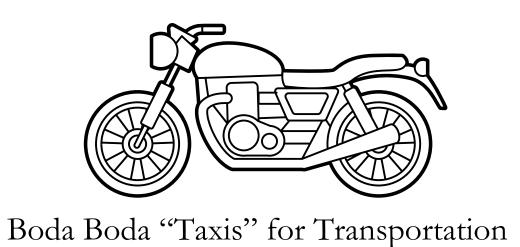
Aid Delivery



Life Savings



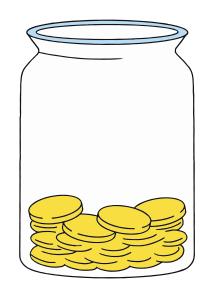
Major Source of Livelihood







Major Source of Livelihood







Debt Trap



Purchased in DRC

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Purchased in DRC





Purchased in DRC

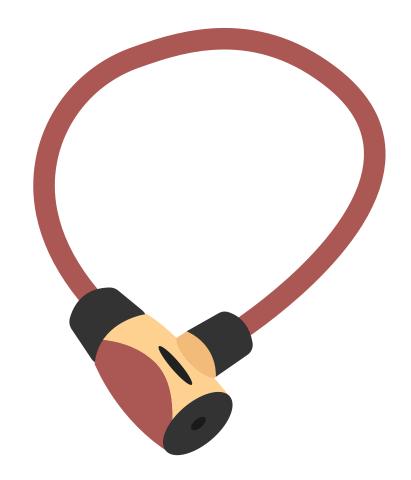




No Police Complaints

Alternatives

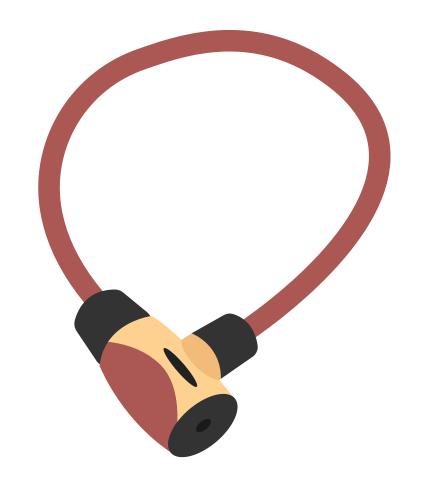
Alternatives



Buy Additional Lock
(Easily Breakable)

75,000 - 85,000 UGX

Alternatives



Buy Additional Lock (Easily Breakable)

75,000 - 85,000 UGX



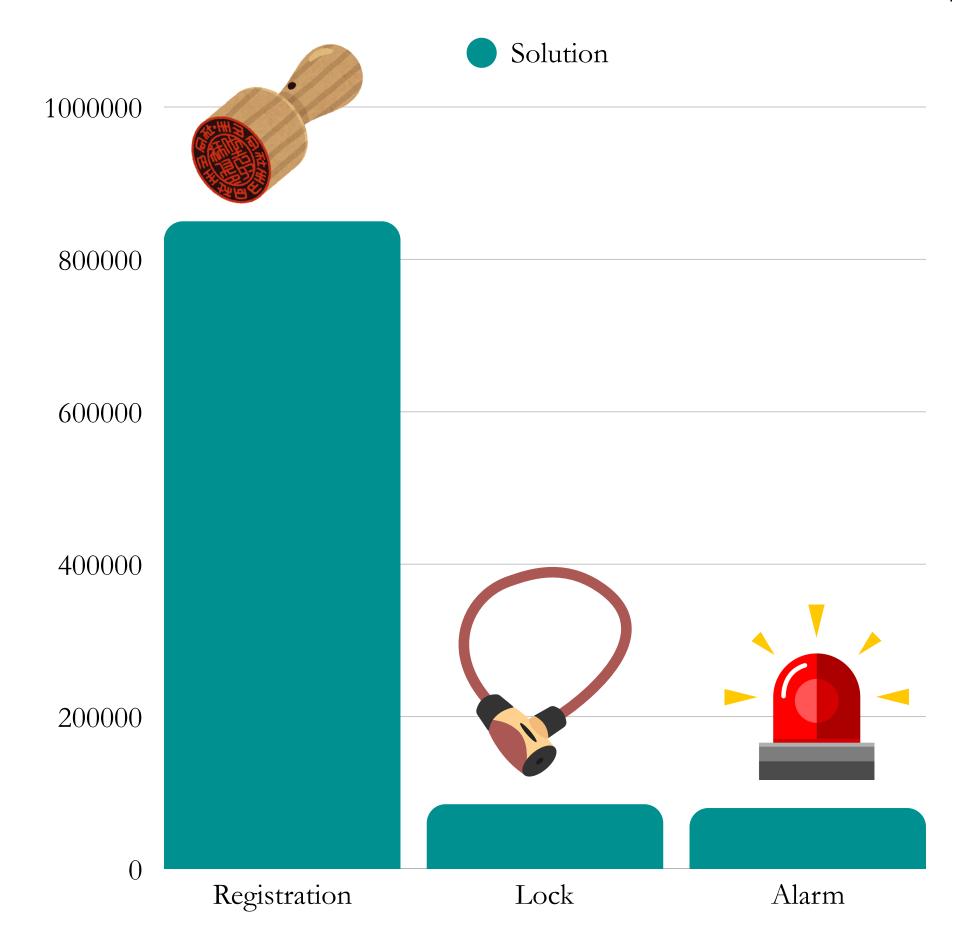
Register the Bike to Involve Police (Not Preventive in Nature)

750,000 - 850,000 UGX

Our Price

80,000 UGX

Comparison



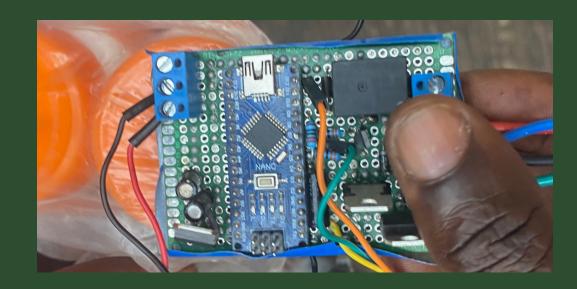
PATH Statement

In West Nile Region of Uganda, thousands of motorbikes are at risk of theft, affecting livelihood, business, transportation and aid delivery. Recovery is rare and there is an immediate need for preventing theft and tracking stolen motorbikes.

Organizations and *boda boda* users will use our durable, affordable and simple high-security alarm which triggers with contact. This will reduce theft and improve prosperity and security in the region.



Summit Goals



Packaging



Installation



Power Options



Pricing

Simple

Durable

Affordable

Key Stakeholders

ALARM TEAM BIKE OWNERS NGO'S



Prototype Models

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Prototype Models



Button

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Prototype Models





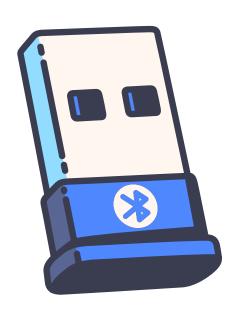
Button

Remote

Prototype Models







Button

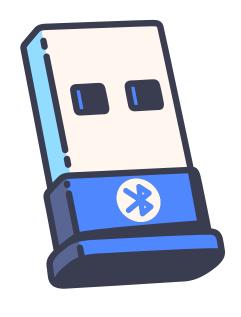
Remote

Bluetooth

Prototype Models









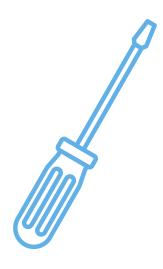
Button

Remote

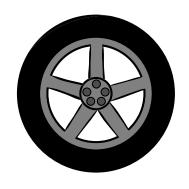
Bluetooth

RFID



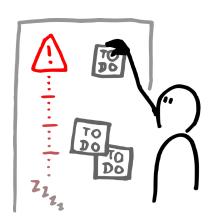


Completed 4 Different
Prototypes

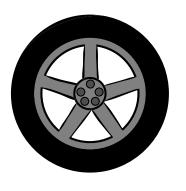




Prototypes

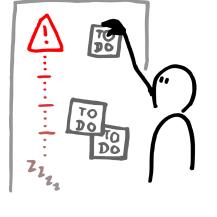


Need/Opportunity
Assessment





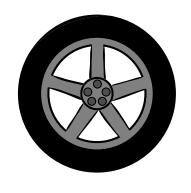
Prototypes

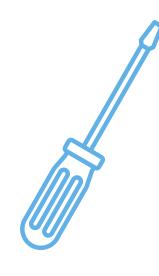


Need/Opportunity
Assessment



Initial Field Testing and Feedback Generation

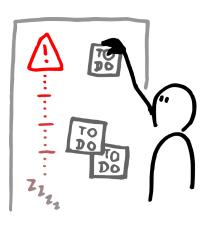




Completed 4 Different
Prototypes



Conversations with potential buyers - Individuals and Orgs

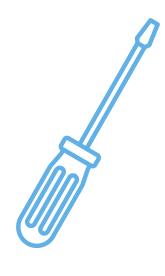


Need/Opportunity
Assessment



Initial Field Testing and Feedback Generation

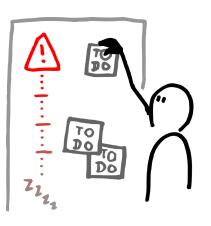




Completed 4 Different
Prototypes



Conversations with potential buyers - Individuals and Orgs



Need/Opportunity
Assessment

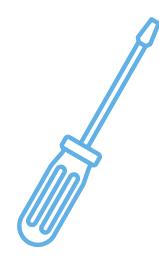


Alarm Packaging



Initial Field Testing and Feedback Generation

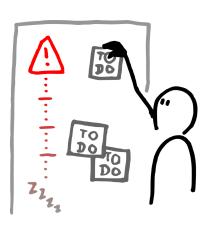




Completed 4 Different
Prototypes



Conversations with potential buyers - Individuals and Orgs



Need/Opportunity
Assessment



Alarm Packaging

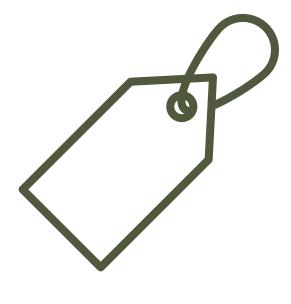


Initial Field Testing and Feedback Generation

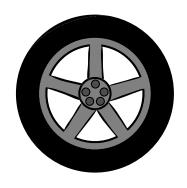


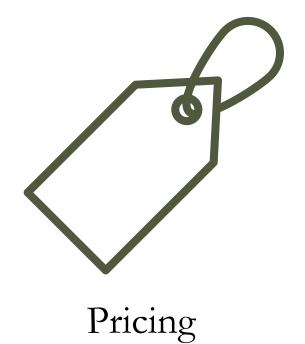
Alarm Placement & Installation





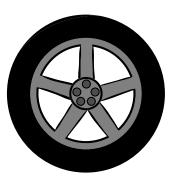
Pricing





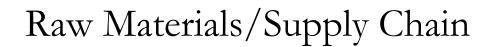


Raw Materials/Supply Chain











Iterations of the Design







Raw Materials/Supply Chain

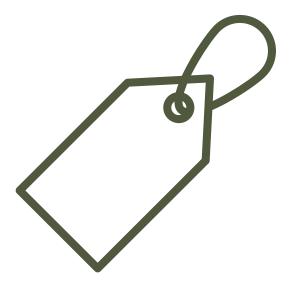


Iterations of the Design



Power Supply of the Alarm









Pricing

Raw Materials/Supply Chain

Iterations of the Design

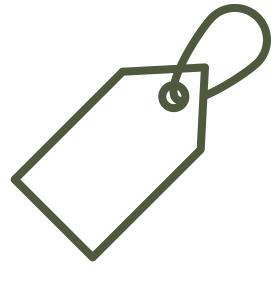


Power Supply of the Alarm



Strength Testing









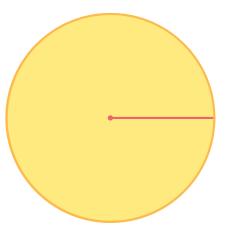
Pricing

Raw Materials/Supply Chain

Iterations of the Design





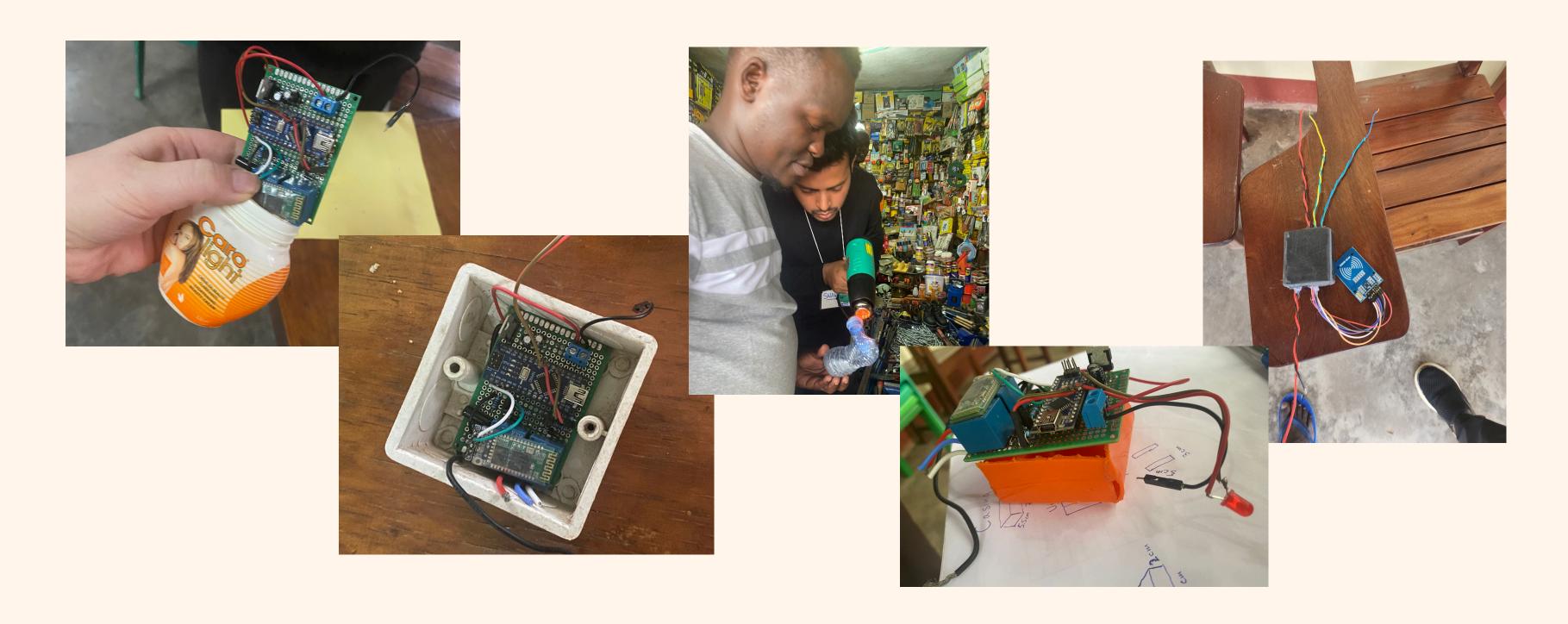


Power Supply of the Alarm

Strength Testing

Power Testing

Achievements: Packaging



Achievements: Installation

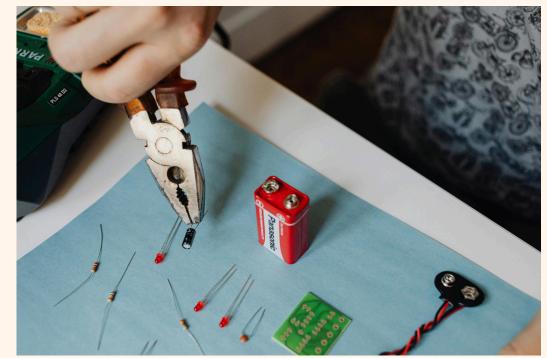


Tool Compartment



Under the Seat

Achievements: Power





• 5 V insufficient for siren

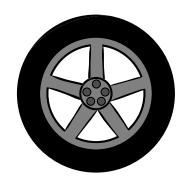
• 9 V audible +65 meters

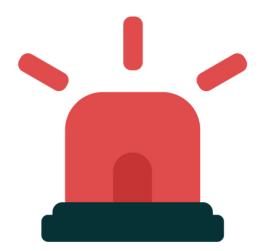
Some bikes have low battery

Achievements: Pricing

- Users said 80,000 shillings at most
- 200,000 shillings in instalments
- Button-Model Cost: 63,500 shillings
- Profit at 80,000: 16,500
- Profit per Hour of Labor: 6,600

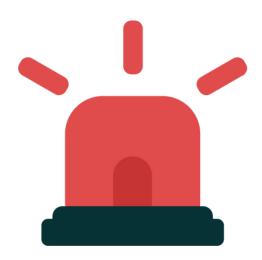






Pilot Testing to Stakeholders



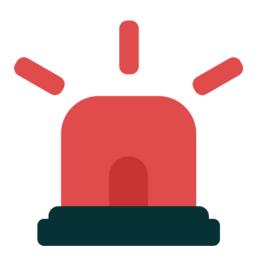




Pilot Testing to Stakeholders

Feedback Survey Generation









Feedback Survey Generation



Establishing Future Goals









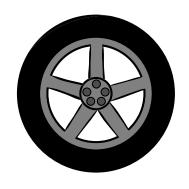
Feedback Survey Generation

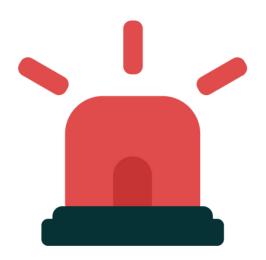


Establishing Future Goals



Profit Margins









Feedback Survey Generation



Establishing Future Goals



Profit Margins



Team Coordination and Roles

Maker-Model Spectrum

Current Makers: Harrison, team

Future Makers: employees? Chinese PCB?

Current maker model



Humanitarian Innovation Business Model Canvas



Partners

Who are the essential groups you will need to work with to deliver your solution?

> NGOs, Team Members, Boda Boda owners, community leaders, supply chain partners

The innovation

Problem

What is the problem you are solving? Right now, motorbike theft. Later, theft of many kinds.

VALUE CREATION

Value proposition

What is the value you are offering to the people who are willing to pay to address the problem?

Protect expensive bikes with a much cheaper solution

point

Unique selling

What about your solution can't be replicated?

Locally repairable. Simple, durable, affordable, preventive solution

VALUE DELIVERY

Segments

Users

Who are the people who experience the problem?

Refugee bike owners, NGOs, larger community

Key resources

Who are assets you need to deliver the solution? People, places, ideas, finances, and access.

Team members, NGOs, D-Lab, Innovation Center, Supply Chain, Marketing Materials, Components

Solution

What is the solution you are offering?

Contact-trigger security alarm

Impact

What is the value you are offering to the people who are experiencing the problem?

> Reduce/Eliminate theft and improve prosperity and security in the region.

Channels

How are you reaching your segments?

Boda Boda hotspots, community members, NGO Partners (bulk), Referral networks

Clients

Who are the people who are willing to pay to address the problem?

Bike owners, NGOs owning bikes, Boda Boda drivers (owners/non-owners)

Cost structure

What are your fixed and variable costs?

Initial Setup of supplies, materials, space. Variable: Supply per unit, labour capacity/human hours per unit

VALUE CAPTURE

Revenue

What value will you generate to ensure the solution can continue to be delivered?

Profit Margin. Break-even point achievable.

Negative externalities

What costs are you generating for others? How does your solution impact the environment? How does it impact your partners? How does it impact your users?

Cannot guarantee zero theft, no tracker in alarm yet once stolen. No Cure in our solution. Only preventive.

Success metrics

Key metrics you will use to know your model is delivering all the dimensions of value.

Key Metrics: Units sold, repeat orders from organizations, repair call number, theft cases reduction in a periodic cycle, word of mouth orders, direct thefts prevented, indirect thefts

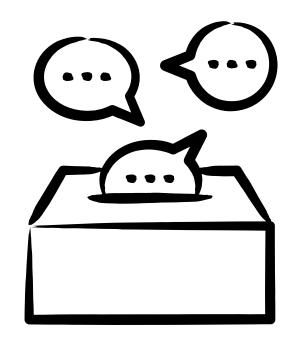






Future Goals





Collect Feedback on Prototypes



Build Local Outreach Team and Stakeholder Network



Business Development

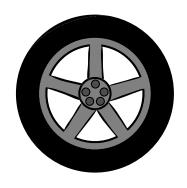


Continued R&D



Build Use-Cases, Guides, Advertisements & Marketing Campaigns

Continuity

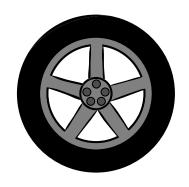


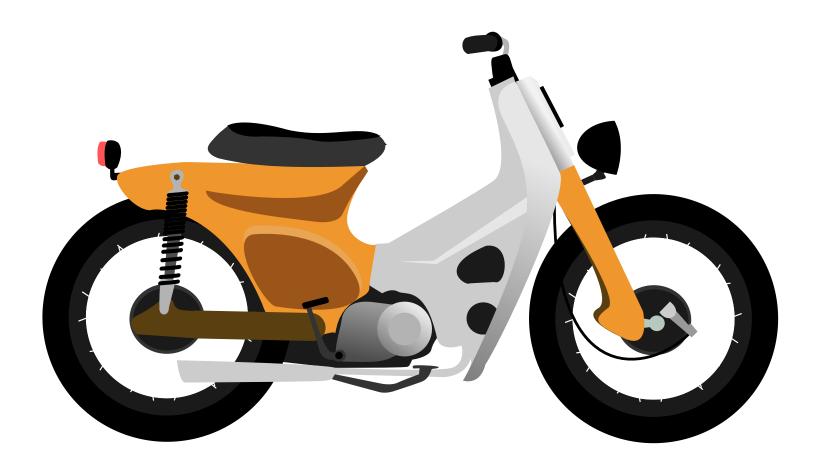


Detailed Documentation

Finally, even with a technically sound device, adoption depends on how well it's understood, trusted, and perceived by the community. Building this trust takes time, local partnership, continued listening and iterations.

What's Next?





The Future

Create a detailed post-semester plan that outlines responsibilities, checkpoints, and potential support structures for the next few months to ensure continuity and prevent the project from losing momentum once the course ends.

Direct Next Steps

