

PROJECT PROPOSAL-TEAM YES HELMET

18.09.2018

In order to fit the new setting of implementation in Jomo Kenyatta University of Agriculture and Technology, Juja Campus in Nairobi, Kenya the team discussed and proposed the following:

Revised Objectives

Set up a conducive infrastructural setup for the long-term overall objective of the project by:

- Mapping bikes around campus using GPS modules to relay coordinates to a server.
- Adding feature to app that user scans surrounding area to locate nearest bike.
- User then unlocks nearest bike upon payment using Mpesa.

Integrate Mpesa API into the application

MPESA is a mobile money platform by Safaricom, leading telco in Kenya.

- Including this feature in the app would help customers pay straight from their phones rather than in cash as in the current system.
- Once payment is confirmed, a combination of numbers sent to user's phone. User enters these numbers into the lock to unlock bike.

Short Term Overall Objective

- Create a solid user base for the application.

Long Term Overall Objective

- Once a user base is created, implement helmet detecting feature on large-scale.
- With partner collaborations, incentivize the app for campus students to earn and redeem points when they take a selfie with helmet (reward system). Run campaigns on road safety, expand to other campuses.
- Expand all above functionality to motorbikes(*boda boda* industry)

Resources Needed for Initial testing of Objective #1-Proof of Concept

Item	Quantity	Price
Bike lock with keypad unlocking capability 自行车智能锁	3	https://s.taobao.com/search?q=自行车智能锁&type=p&tmhkh5=&spm=a21wu.241046-global.a2227oh.d100&from=se a 1 searchbutton&catId=100 https://s.1688.com/seller/offer_search.htm?keywords=%D6%C7%C4%DC%CB%F8+%D7%D4%D0%D0%B3%B5&n=y&netType=1%2C11&spm=a260k.635.3262836.d102
NEO-6M A GPS Module WITH EEPROM	3	https://s.1688.com/seller/offer_search.htm?keywords=NEO-6M%B4%F8EEPROM+GPS%C4%A3%BF%E9&button_click=top&earseDirect=false&n=y&netType=1%2C11 https://s.taobao.com/search?q=NEO-6M带EEPROM+GPS模块&js=1&stats_click=search_radio_all%3A1&initiative_id=staobaoz_20180920&ie=utf8
WiFi Module-nodeMCU	3	https://s.taobao.com/search?q=WiFi+Module-nodeMCU&js=1&stats_click=search_radio_all%3A1&initiative_id=staobaoz_20180920&ie=utf8

		https://s.1688.com/seller/offer_search.htm?keywords=Wifi+Module-nodeMCU&button_click=top&earseDirect=false&n=y&netType=1%2C11
Taridan Batteries GmbH(Purple) for GPS Module	3	https://s.taobao.com/search?q=Tadiran+Batteries+GmbH (紫色)&js=1&stats_click=search_radio_all%3A1&initiative_id=staobaoz_20180920&ie=utf8 https://s.1688.com/seller/offer_search.htm?keywords=%E7%B3%9C%E7%BB%9C&button_click=top&earseDirect=false&n=y&netType=1%2C11

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