PHNOM PENH SMART BUS STOP

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I. INTRODUCTION

In Phnom Penh today, we had observed that the use of public transportation services is experiencing a significant flow of usage. Public transportation in Cambodia is currently limited to only the public buses of the Phnom Penh Autonomous Public Transport Authority. Taken note from the routes of Phnom Penh City Bus in 2020, we could identify that there are 15 lines deployed on major boulevards in Phnom Penh which operates from 5:30 am to 8:30 pm daily.

II. PROJECT DESCRIPTION

The Phnom Penh Smart Bus Terminal is designed to provide an extra level of convenience for the next generation of people while also targeting people with disabilities. With new technology tools that were not available in Cambodia, users will completely avoid the hassle of using time and money to contribute to clean roads as well as the environment. People with disabilities, in particular, will find it effortless to use and feel completely similar to normal users.

III. THE PROBLEM/ CAUSES OF THE PROJECT
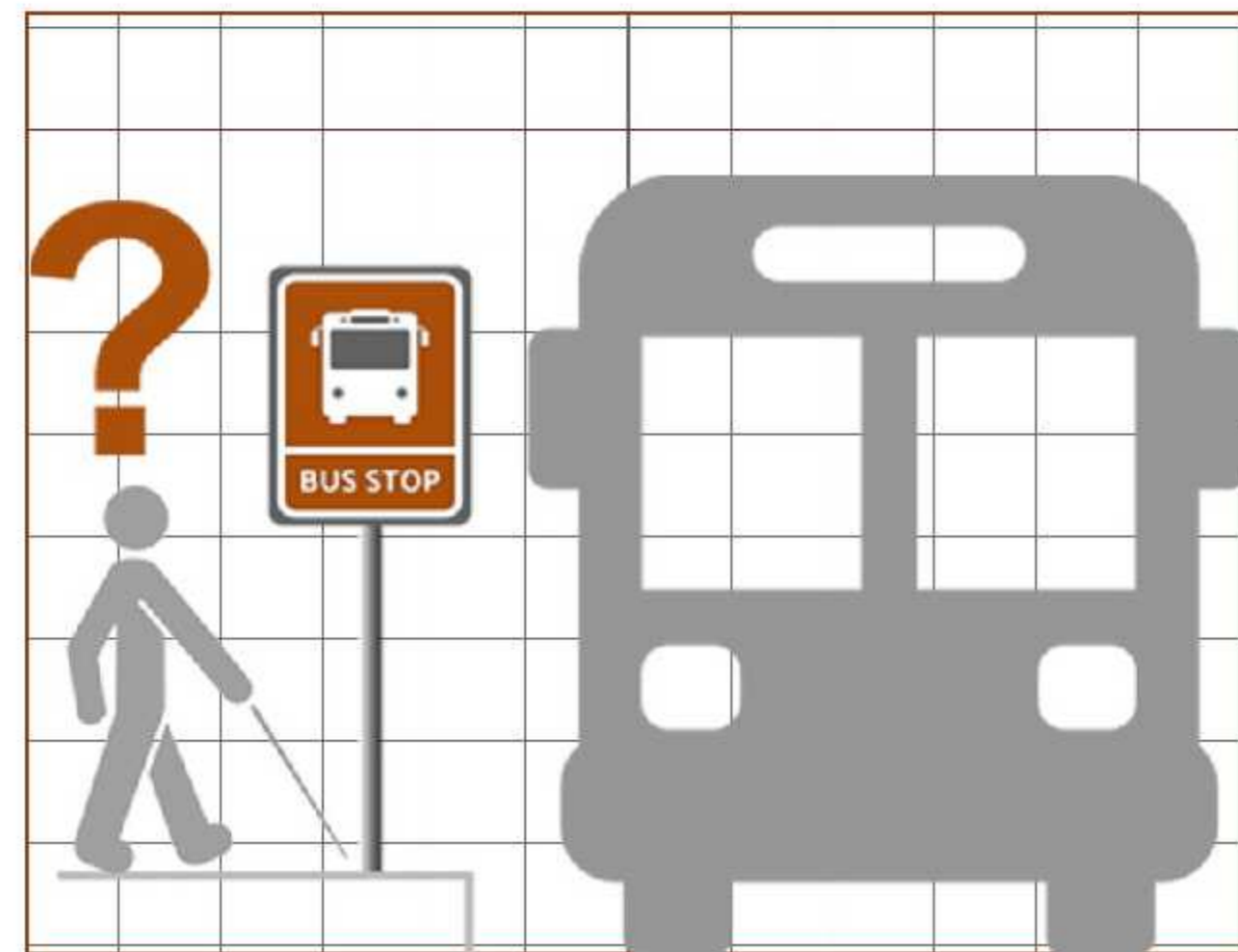
Although Cambodia has already established public transportation by bus, there are still some challenges and shortcomings. Threatnen and deficiency:
- Lack of consideration for the use of people with disabilities
- Lack of information on the journey of each bus
- Power consumption from EDC
The above shortcomings have deliberately slowed the growth of the number of people using the bus as a way of transport and thus, continue to use individual vehicles, making it more congested which leads to serious detriment to the urban environment.

IV. GOAL OF THE PROJECT

The purpose of this project is to help address the shortcomings outlined above in line with the United Nations (UN) Sustainable Development Goals (SDGs), in particular the SDGs9: Industries, innovation and infrastructure. And the SDGs11: Sustainable cities, and Communities.

SUSTAINABLE DEVELOPMENT GOALS

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES
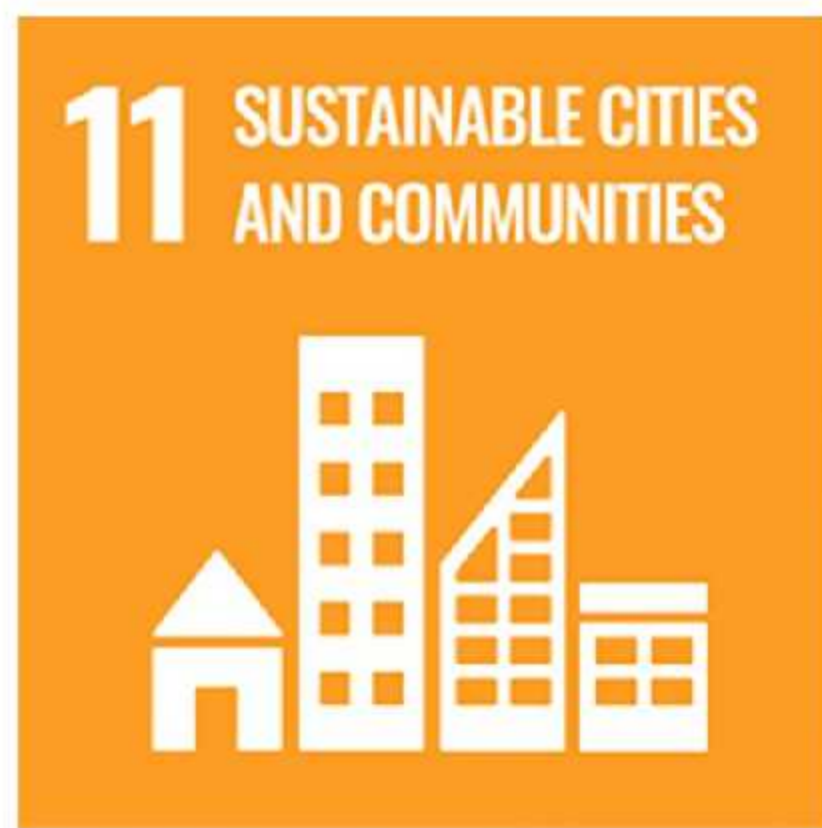
V. PROJECT PROPOSAL

VI. PROJECT FEATURE

SOLAR PANEL
Will reduce energy consumption, easy to install and maintain. Usable in everytime, help generate energy for the whole bus stop.

SPEAKER
Hidden in the display. It will announce when the bus arrive, so visual disability people will know.

LIGHTING
Lighting is usabel at night. Showing the bus this stop has await people.

360 DEGREE CAMERA
Record every action around bus stop and help count how many people wait for the next bus. So, the bus will know and authority can count the record of the flexibility using number.

OVERVIEW

RFID BUILD-IN CHIP
Use to identify which bus is arriving and leaving.

LED DISPLAY
It will show the bus number that has been requested by passengers at that stop. Bright Amber LED maximise visibility, particular at night or in bad weather.

ROUTE MAP
Use braille and large fonts to help the visually impaired and senior to identify the bus and route.

FLAG BUTTON
The LED display will show the bus number when the button is pressed. the button is placed at a wheelchair accessible height.

QR CODE SCANNING
It will access to the live location website that shows GPS of the bus lines and tell the speed and arriving time.

Union Stop

57 KOH PICH		88 AEON MALL PP	
All Door Loading available for this stop		All Door Loading available for this stop	
5min	Koh Pich	2m in	Aeon Mall PP
7min	Naga World	5m in	Bokor
12min	Wat Botum	7m in	ABA MST
15min	IM	9m in	TTP pagoda
18min	Yukunthor	12m in	IBC MST
20min	Olympic NS	15min	The Point
22min	Depo market	17min	WWW
27min	EDC DN	19min	Chroda
32min	Two Doors	21min	Rep Phan
57		**88**	

HOW THIS WORK:

Press and rest: after press the flag button, passengers can wait comfortably under the shelter. no need to frequently check if the bus is coming.

Announce arriving bus: It will announce the bus number to the commuter waiting, once the bus left, the LED will update.

VII. PROJECT CONCLUSION

This PHNOM PENH SMART BUS STOP project will contribute to the improvement of public infrastructure in Cambodia with the help of new technologies for sustainable and smart development.