

# CROWD ALERT BOARD FOR DETERRING OVERCROWDING



**INVENTOR:** CHONG JING YU  
**FACULTY:** FACULTY OF INDUSTRIAL MANAGEMENT  
**UNIVERSITY:** UNIVERSITI MALAYSIA PAHANG  
**EMAIL:** jingyucjy11@gmail.com  
**CO-INVENTORS:** WAN NURUL EMILIA ZOLKEPELI, NURHAFIZAH SAZALI, NUR ANIS NAJIAH ZULKIFLI, SYAHIR IZZUDDIN IMANI HAMIDON, SUZIYANA MAT DAHAN

## PRODUCT BACKGROUND

### PROBLEM



Overcrowding in stores



No physical distancing and long queuing

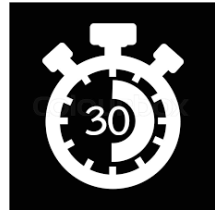


New normal & SOP

### SOLUTION



Limited number of customers in store



Set limited time for shopping



Allocated time alert

## MARKETABILITY & COMMERCIALISATION



Retailing Industry  
(supermarkets, hypermarkets, departmental stores, convenience shops, mini marts & other retail businesses)

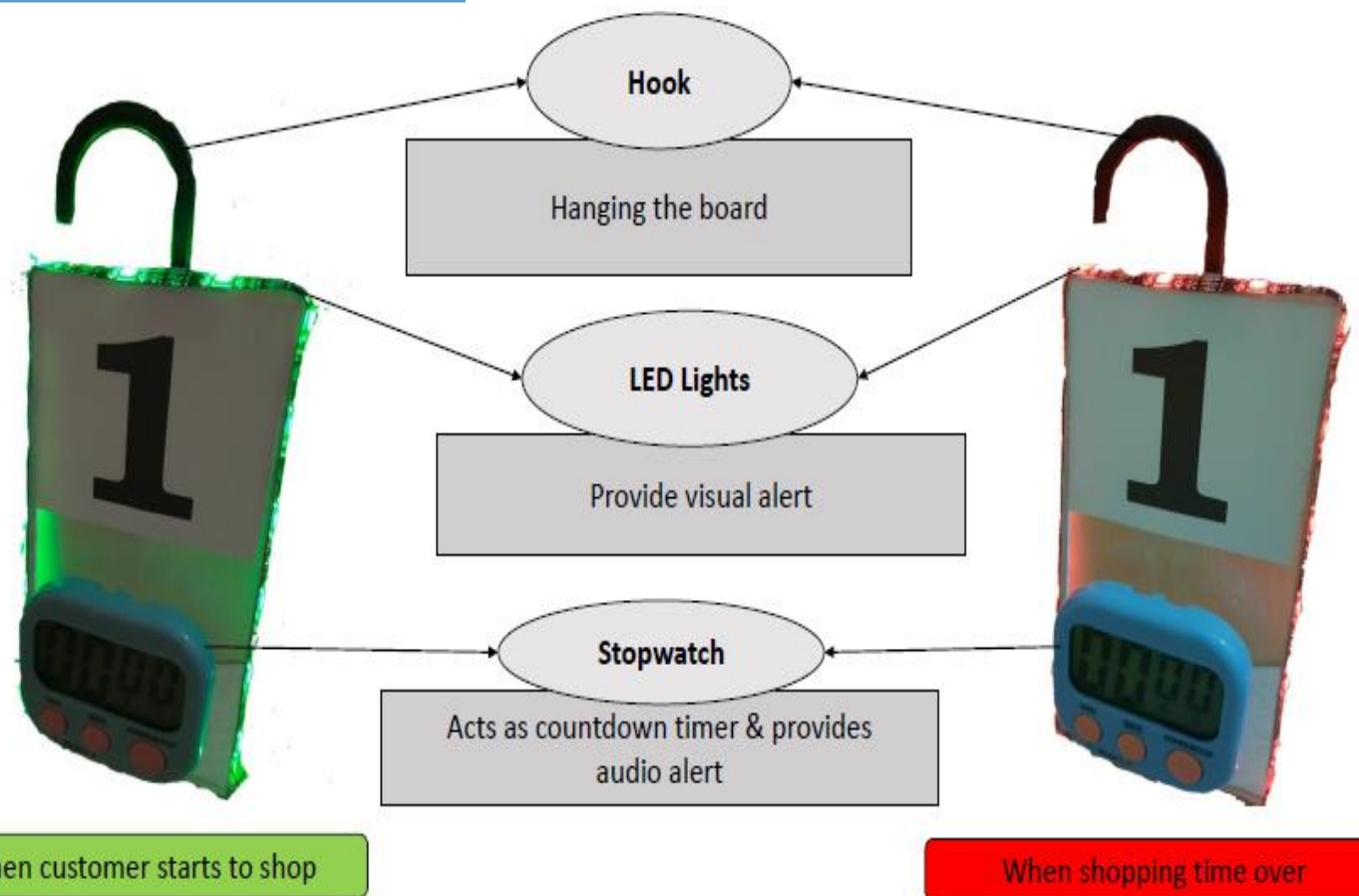
## COST ANALYSIS

ITEM	COST (RM)
Acrylic Board	3.00
AA Alkaline Batteries	10.00
Stopwatch	3.50
LED Light	1.50
Hook	1.50

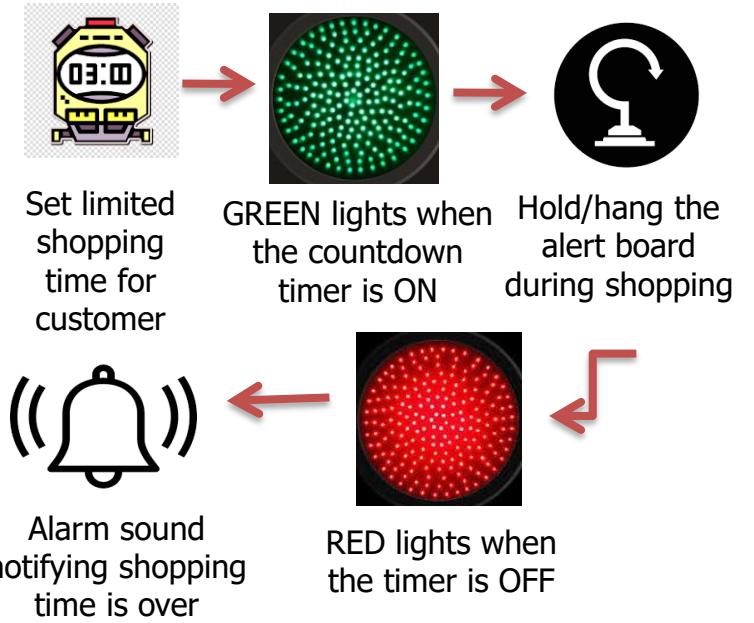
## APPLICABILITY

- Control maximum customers' occupancy limit in a store
- Follow physical distancing practices
- Monitoring customers' shopping time keeping
- Reduce line-up customers waiting time

## NOVELTY/ ORIGINALITY/ INVENTIVENESS



## METHOD OF FUNCTIONING



**Acrylic Board** – lightweight, durable, less costly material & hygiene  
**AA Alkaline Batteries** – higher energy density, longevity & safety  
**LED Strip Lights** – energy efficient, cost effective & eco-friendly  
**Mini Digital Stopwatch** – lightweight, accurate & user-friendly  
**Nickel-Plated Steel Hook** – sturdy, durable, less costly & corrosion-resistant

## STATUS OF INNOVATION

