### Traffic Light for Everyone

Traffic light designed to provide equal safety for both color-blind and non-color blind people

## **COLOR BLIND PEOLE POPULATION**

South Korea 5.4%- 2.7 mln people

#### **World Statistic**

300 mln people 4% of the world population

- 1 in 12 men (8%)
- 1 in 200 women (0.5%)



### **COLOR BLINDNESS**

- Described as poor or deficient color vision.
- Inability to see the difference between certain colors



More men than woman likely to born with color blindness



Most color blind people between certain shades of red and green



Usually genetically inherited. Thus not treatable.

## HOW DOES COLOR BLIND DRIVERS SEE THE TRAFFIC LIGHT?

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### NON COLOR BLIND

### **COLOR BLIND**



People with no color deficiency can see the traffic light color



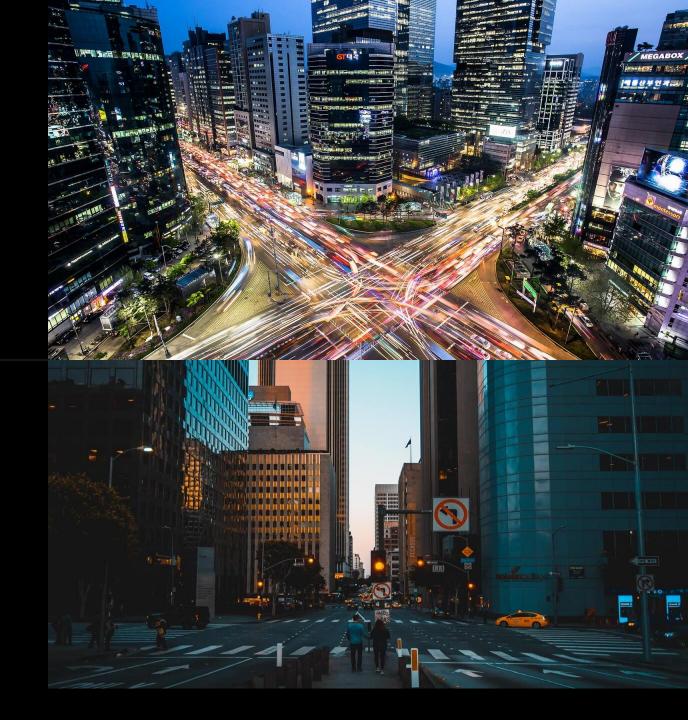
Color blind people suffer to distinguish the traffic light colors

## DRIVERS

### TRAFFIC LIGHT FOR BOTH COLOR BLIND AND NON COLOR BLIND PEOPLE IMRPOVING THE SAFETY OF THE ROAD

## PEDESTRIAN

- SAFETY FOR DRIVERS
- SAFETY FOR THE PEDESTRIANS



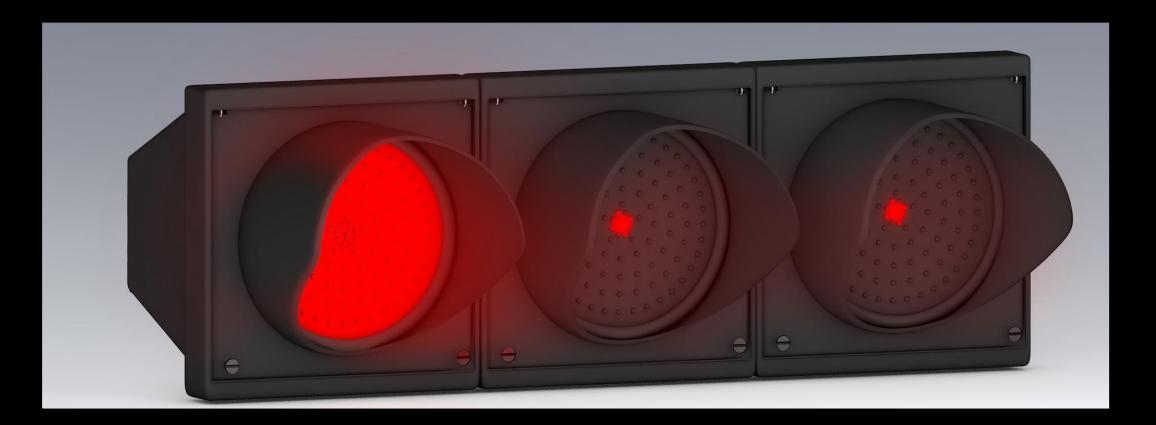


#### DESIGN AWARD 2021

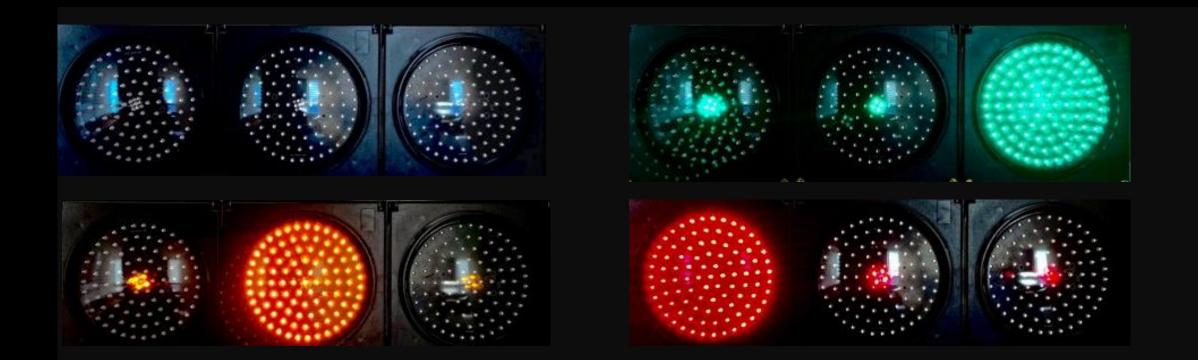
### LITTLE STAR TRAFFIC LIGHT

- Traffic light designed for all people consisting color blinded people and normal eye sighted people.
- iF 2021 Design award for its outstanding design and product that is designed to improve the quality of life and wellbeing of the community.











## LITTLE STAR TRAFFIC LIGHT MECHANISM



### STRUCTURE

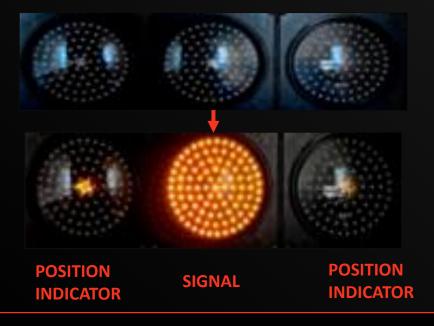
Position Indicator LEDs installed in each PCB with surrounding the middle LED





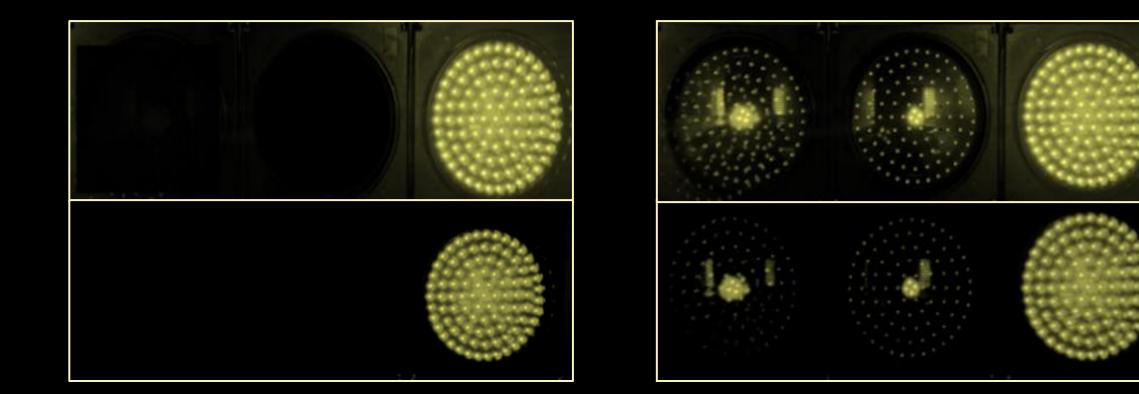
### PRINCIPLE

Position indicator LED consist two colors. The colors differ from each other and cross installed on a middle LED of PCB. As PCB, the signal is on, position indicator LEDs are also lit simultaneously as color of the PCS





### **TRAFFIC LIGHT NIGHT VIEW COMPARISON**



### NORMAL TRAFFIC LIGHT LITLLE STAR TRAFFIC LIIGHT



## WHAT WE OFFER







#### REDUCE NUMBER TRAFFIC ACCIDENT

The number of traffic accident of color-blind driver was about twice as high as that of non-color-blind driver



### MAKE TRAFFIC LIGHT COLOR DISTINGUISHABLE FOR ALL PEOPLE

- The LCD Technology Makes The Light Easily Distinguishable
- Reduce Inequality Within And Among Countries For The Color-blind People



### ENHANCE THE SAFETY OF COMMUNITY

- BUILD MORE SUSTAINABLE CITIES AND COMMUNITIES
- SAFE INFRASTRUCTURES



#### REDUCE NUMBER TRAFFIC ACCIDENT

- The number of traffic accident of color-blind driver was about twice as high as that of non-color-blind driver
- Little star can reduce the overall traffic accidents by 2% at least.

### COLOR DISTINGUISHABLE FOR ALL PEOPLE

- The LCD technology makes the color of the signal easily distinguishable for all people
- Reduce Inequality Within And Among Countries For The Color-blind People



### REDUCE THE ECONOMDIC LOSS

 By reducing the overall traffic accidents by 2% at minimum, we can reduce the both economic and social loss caused by traffic accidents

#### ENHANCE THE SAFETY OF COMMUNITY

- Build more sustainable cities and communities
- Safe infrastructures

## **AWARD AND CERTIFICATION**

#### **REGISTERED FOR**

KOREA INTELLECTUAL PROPERTY OFFICE



DISCIPLINE PRODUCT CATEGORY 1.19 Public / Retail

### Little Stars traffic light

**Traffic Light** 

DESIGN Korea Nuclear Engineering Co., Ltd. Seyup Lee Seoul, Republic of Korea

CLIENT / MANUFACTURER edge X Seoul, Republic of Korea PATENT APPLICATION FOR DESIGN

30-2021-0024074



- EQUAL
- UNIVERSAL
- ADVANCED
- ACCESSIBLE