



Selected as an Excellent Design
Ministry of Trade, Industry and Energy



Innovative comprehensive procurement portal
Innovation Marketplace

Lifesaving rocket launcher



Quickly saves drowning people

Life Guard-100

Lifesaving Rocket Launcher

First of its kind developed in Korea! Application of IoT-based technology!
Real-time monitoring with 119 automatic reporting!
60m effective range! Automatic fire 40 times! Simple operation!
Inflates within 2-3 seconds of contact with water! Extends the golden time!

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Innovation-oriented public procurement brings momentum to innovation prototypes
Selected as a technology innovation prototype by the Public Procurement Service in 2019

Government to allow KRW 1.2 trillion in contracts to purchase innovative products in public procurement in 2020

Various benefits such as purchase target systems, government evaluation incentives, etc.

2019, Awarded Korea Invention Patent Daejeon Award from the Commissioner of the Korean Intellectual Property Office
2020, Selected as an Innovative Procurement Company in 2020

Media report

YTN

'60미터 날아가는 인명구조 로켓 튜브'



60m 날아가는 인명구조 로켓 튜브



구조용 로켓 튜브, 최대 60m 날아가

-YTN news
Aired on July 29, 2019

TJB

'인명 구조 로켓' 41개 혁신 제품 첫선



8대 '인명 구조 로켓' 41개 혁신 제품 첫선



-TJB news
Aired on October 14, 2019

내일신문

“인명구조함 로켓발사기
조달청 혁신시제품 선정”



대구지역 중소기업인 감환경디자인(주)이 개발한 인명구조함 로켓발사기 'Life Guard-100'이 지역에서 유일하게 조달청 혁신시제품 구매사업 대상 제품에 선정됐다.

-Naeil Shinmoon
Newspaper October 23, 2019

전자신문

“정부, 내년 공공조달 시장에서
혁신제품 대량 구매 추진”



주형철 청와대 경제보좌관은 “청와대가 내년 공공조달 시장에서 혁신성이 뛰어난 기술·제품 1조2000억원 이상 구매를 목표로 정했다”고 밝혔다. 도입 사례가 없어도 정부가 선도적으로 구매해 혁신 제품의 공공조달 시장 진입 문턱을 낮춘다.

-ETNEWS
Newspaper October 16, 2019

헤럴드경제

“올해까지 R&D 혁신제품
공공조달때 수익계약 허용”



정부가 올해 안으로 우수한 연구개발(R&D) 혁신제품을 지정해 수익계약을 허용한다. 혁신제품 구매 목표제를 도입해 안정적인 판로 확보를 도울 방침이다. 혁신지향 공공조달은 정부가 혁신 제품을 사들여 민간의 혁신성장을 지원하는 조달 방식이다.

-news, HERALDcorp
Newspaper October 16, 2019

경북신문

“조달청 특별전시회
감환경디자인(주) 참가”



대구지방조달청은 14~15일 정부대전청사에서 열린 조달청 특별전시회에 대구 경북지역 기업의 제품이 전시됐다고 15일 밝혔다. 감환경디자인(주)기업의 제품은 기술심사 및 현장실사, 특허적용 사항 확인, 대상제품의 조달 적합성 및 파급성 등에서 우수한 평가를 받았다.

-TKNEWS
Newspaper October 15, 2019

AWARD



Award winner in the 1st Innovation Procurement Competition



(Dangerous breakwater)

Conventional lifesaving boat

In case of broken or empty lifesaving boats, nobody can respond to accidents early



(Problems with existing lifesaving boats)

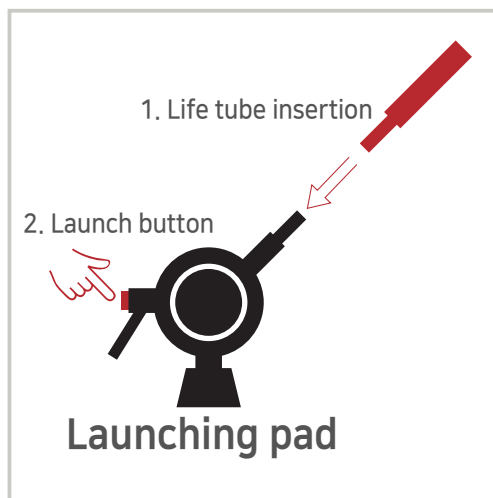
Problems with existing lifesaving boats

Lifesaving boats currently in use are those that people throw at the scene of an incident, which makes it impossible to throw life tubes accurately to a drowning person at a distance. Problems exist such as lack of **speed, accuracy, and effectiveness** for rescue of drowning people.



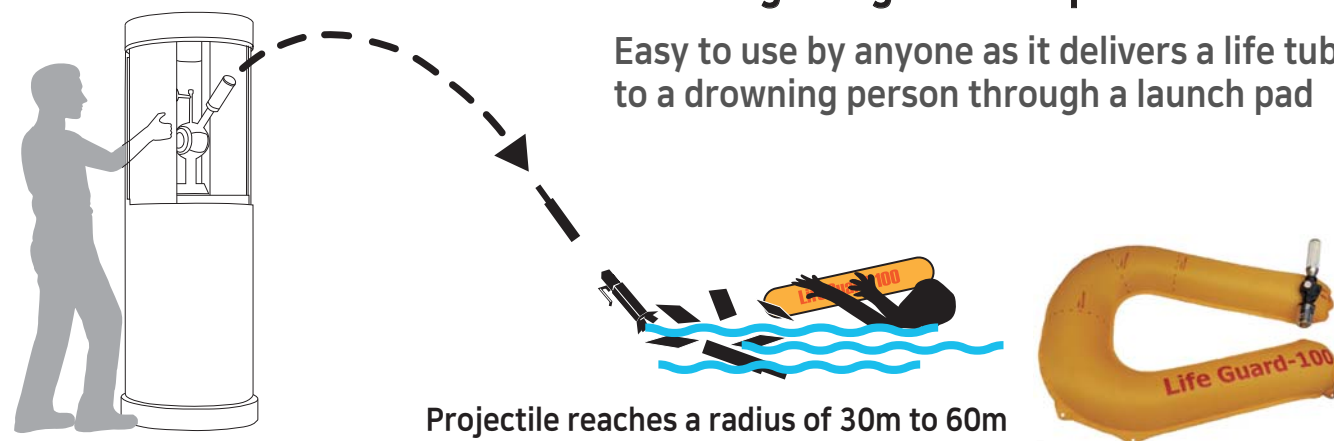
How to use the Product

- Use the launch pad to deliver the life tube up to 60m
- Easy to use: two steps, 40 automatic firings
- After reaching the water surface, the life tube expands within 2-3 seconds to protect the life of the drowning person and make rescue easy.



Shooting using a launch pad

Easy to use by anyone as it delivers a life tube to a drowning person through a launch pad



How it works

1.

Door open

Press the door open button
Automatic report to 119
Emergency Dispatch

2.

Fasten the life tube to the launch pad

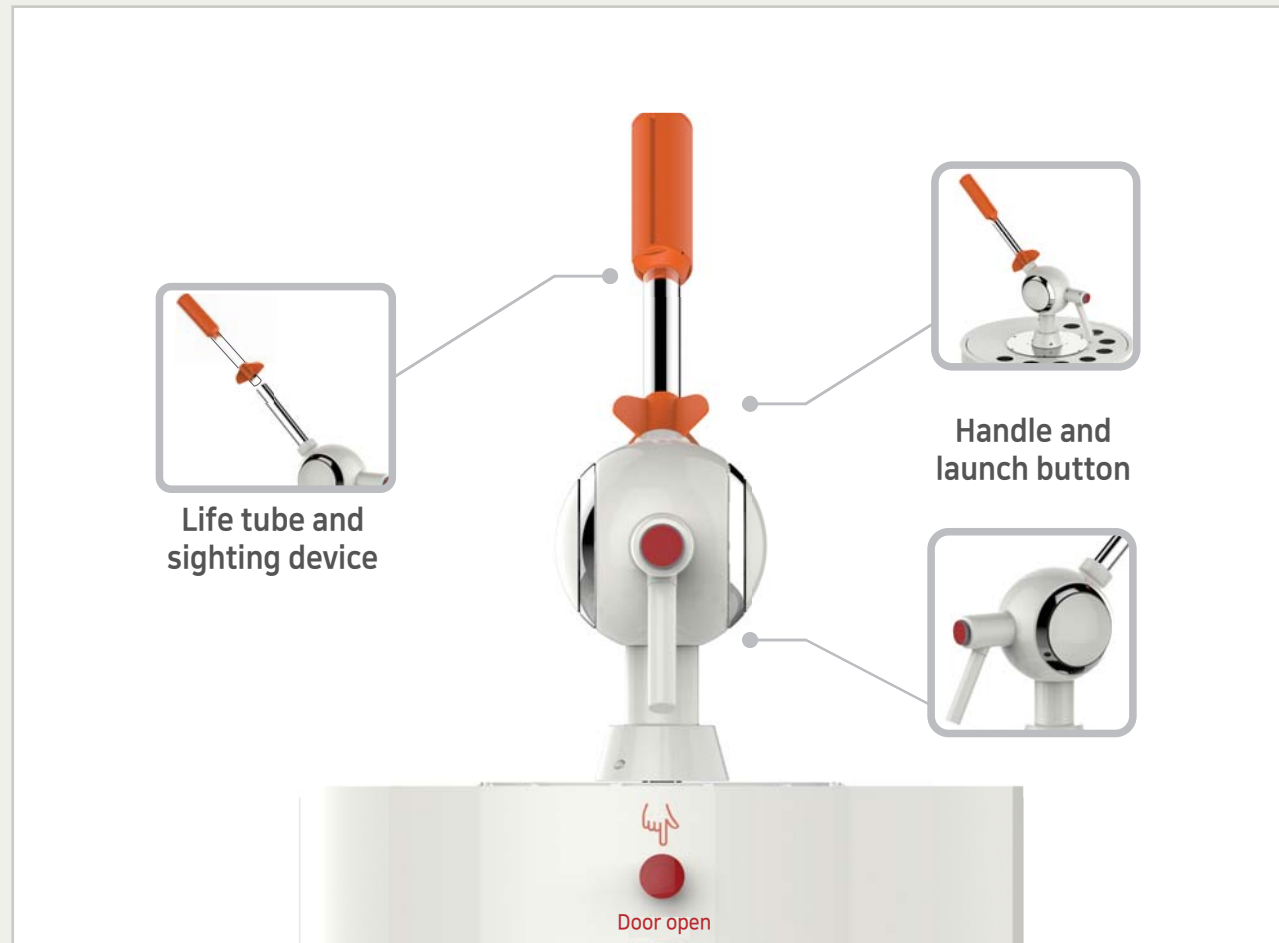
3.

Aim the distance and angle in the direction of the drowning person and press the fire button.

When using at close range

Directly throw a life tube if the distance is within 7~8m

Detail Structure

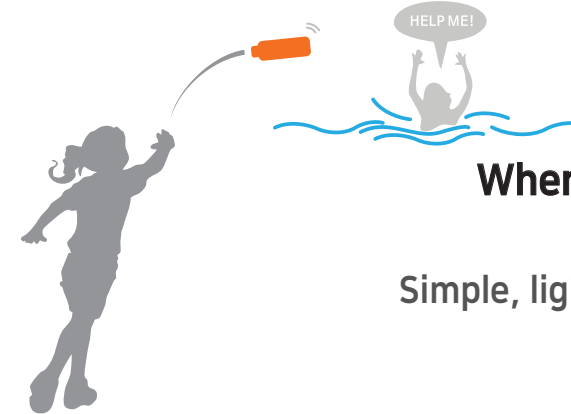


With Life Guard as a brand name, we intended our product to provide easy use by anyone in an emergency situation.

Life Guard-100



How to use manually



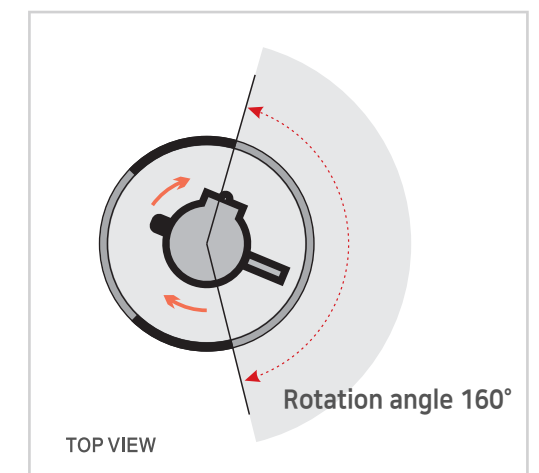
When used at close range in an emergency

Direct throw without using a launch pad
Simple, lightweight life tube can be thrown by anyone

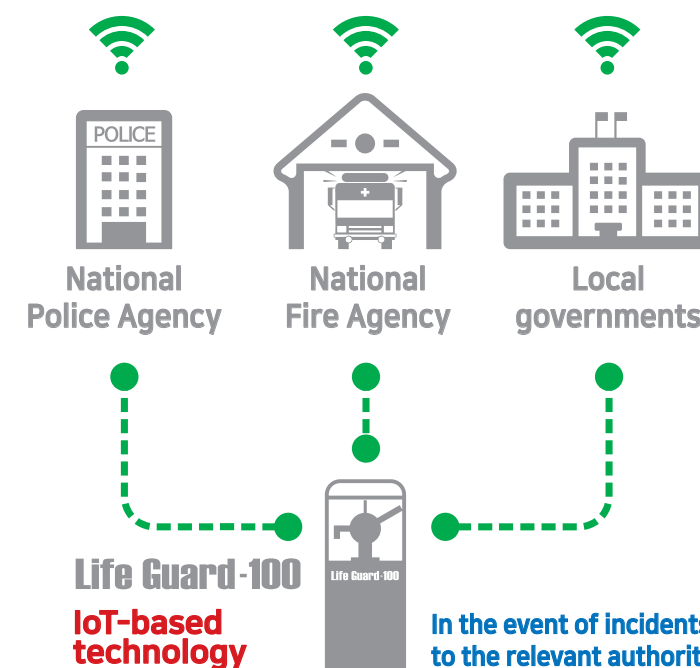
Safe use angle

Prevention of mischief and incidents

- Rotation angle is limited to 160 degrees to prevent misuse by children and drunks
- Real-time monitoring system through video shooting and control



Advantages of Life Guard-100



- Effective range up to 60m
- Up to 40 automatic shots
- Simple operation
- Power generation with solar panels
- Implementation of IoT-based technology integrated control systems
- Management and maintenance with smartphone app
- Check real-time tube status and gas capacity
- Reduces site visit frequency and operating costs

In the event of incidents (the door-opening product), the situation is transmitted to the relevant authorities through the integrated control system.



Dongchon Amusement Park, Dong-gu, Daegu



Dongchon Amusement Park, Dong-gu, Daegu



Okyeonji, Dalseong-gun, Daegu



Samsanbo Dam, Yeongyang-gun, Gyeongsangbuk-do



Sori-gil, Hapcheon-gun, Gyeongnam



Yongdang-dong, Yangsan-si, Gyeongnam



Okyeonji, Dalseong-gun, Daegu

Life Guard-100

Installation cases



Dalchangji in Dalseong-gun, Daegu

Construction case



Ipgok Reservoir in Haman-gun, Gyeongnam



Ipgok Reservoir in Haman-gun, Gyeongnam



Guraji, Suseong-gu, Daegu



Bongmu Park in Dong-gu, Daegu



KangChangGyo Bridge, Dalseong-gun, Daegu



Sangdong-myeon, Namhae-gun, Gyeongsangnam-do



Jecheon Port in Goseong-gun, Gyeongnam



Nampo Port in Goseong-gun, Gyeongnam



Unmun Dam in Cheongdo, Gyeongbuk



Buhang Dam in Gimcheon-si, Gyeongsangbuk-do



Sanga-dong, Andong-si, Gyeongsangbuk-do



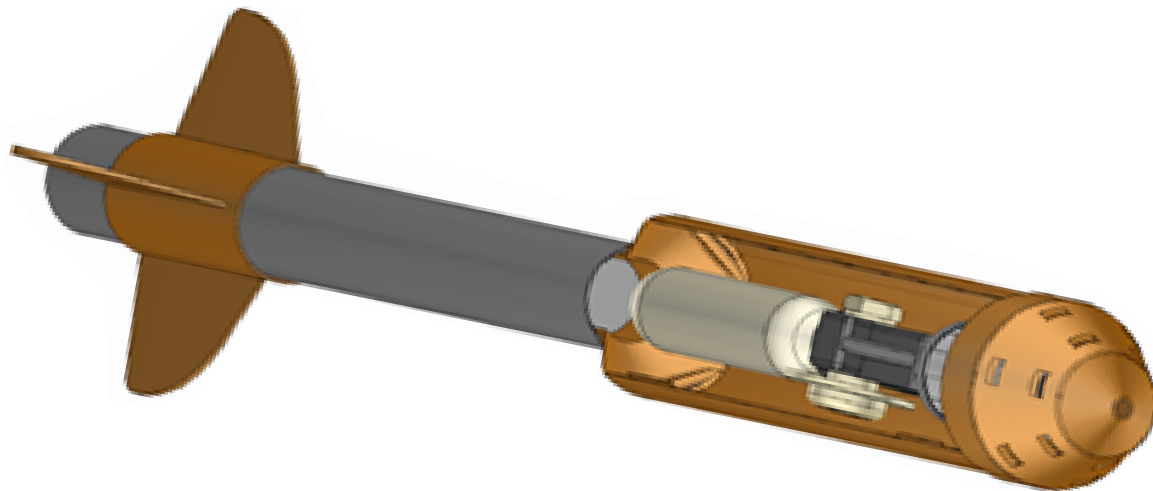
Korea Gas Corporation Samcheok Station

Lifesaving Rocket Launcher

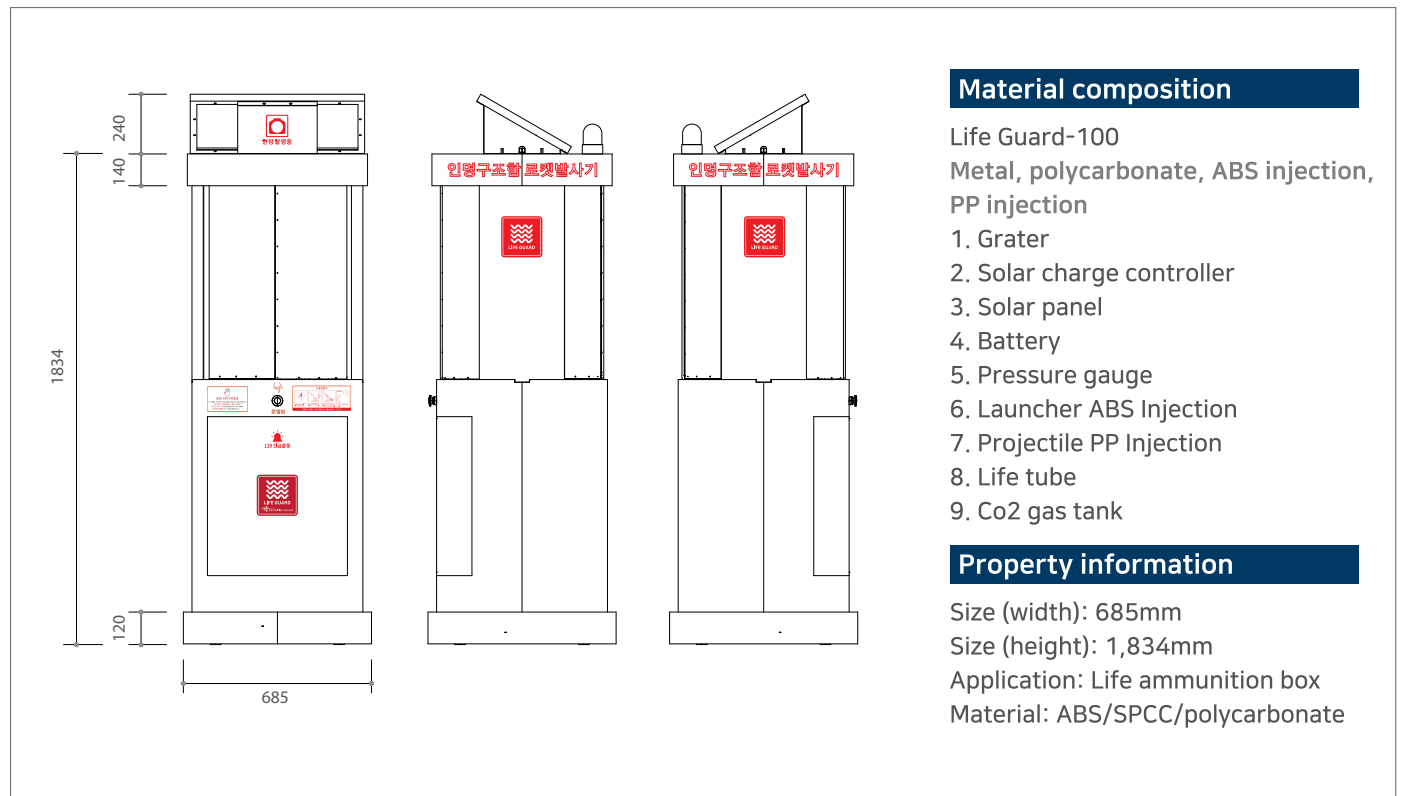


Korea Gas Corporation Jeju Headquarters

Certificate of patent



Dimension



Material composition

- Life Guard-100
Metal, polycarbonate, ABS injection, PP injection
1. Grater
 2. Solar charge controller
 3. Solar panel
 4. Battery
 5. Pressure gauge
 6. Launcher ABS Injection
 7. Projectile PP Injection
 8. Life tube
 9. Co2 gas tank

Property information

Size (width): 685mm
Size (height): 1,834mm
Application: Life ammunition box
Material: ABS/SPCC/polycarbonate



Life Guard-100

Lifesaving Rocket Launcher



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