Ship deck fire monitoring and evolution, ship operating safety and external risk monitoring and safety system

Currently, when ordering ships, orders are made to the shipyard in consideration of shipbuilding amount, shipboard cargo volume, ship operating cost, and new ship technology.

There is no difference in technology and construction ability of all shipyards.
But the big difference is the amount.
Most shipowners place orders at Chinese shipyards.

But I think the most important part of the ship is the safety of the ship.

What is the greatest risk in the current ship operation?

1. Pirate abduction

In the Gulf of Aden and the Southeast Asian seas, abduction of vessels is occurring the most.
As a result, the owner is losing a very large sum.
(Damages due to inability to operate the ship, damage due to seizure of the crew, damage due to delays in delivery of the ship's cargo)

2. Accident caused by collision between ship and ship during fog area operation

It is difficult to check outside when operating a ship in a foggy area.
It is mainly operated by radar, but small ships can not be confirmed

by radar. There is an accident caused by it.
Therefore, it is necessary to repair the ship.
The repair will result in loss of money.
The ship can not be operated, resulting in loss of money.

3. Ship deck fire

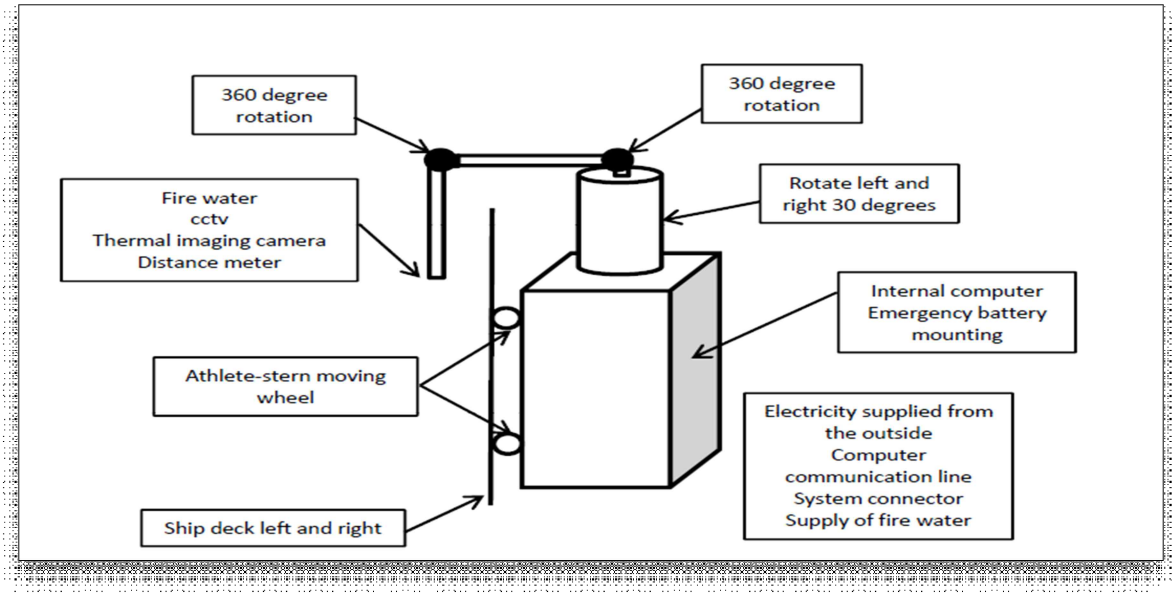
In case of fire
The ship's own fire extinguishing system must be activated.
However, when a fire occurs on the deck of a ship, crews must go out on the deck to extinguish the fire.
However, this is dangerous behavior to the safety of the crew.

4. External cargo monitoring is not possible when the weather is deteriorating.

When passing through a weather-affected area (typhoon, storm and danger zone), it is necessary to constantly monitor the cargo exposed to the outside, but this can not be done because of the danger of the safety of the crew.
This may result in a situation that may present a risk to the ship,

If you protect the ship in four situations, the shipowners will be satisfied.

My ideas are as follows.



Ship fire

usually

Installed on left and right side of ship
Move from the front of the ship to the back of the ship
Move from the back of the ship to the front of the ship
Vessel deck monitoring (monitoring above ambient temperature with thermal imaging camera)

In case of fire
Detect strange parts than surrounding heat
Automatically notify the wheelhouse
Precision monitoring with cctv thermal imaging camera
Fire extinguishing system operation

When passing through fog area

Front of ship, monitoring of left and right side of ship
Monitoring of objects higher than ocean heat with thermal imaging camera
Operate range finder when approaching an object
Notify the wheelhouse

When passing through hazard area such as pirate raid

Operation of the system installed on the right and left side of the ship
Outside monitoring of ship
When approaching a pirate ship
Conduct distance measuring operation distance measurement
When the pirate ship approaches a certain distance
Operate fire extinguishing system in approach direction
Access blocking

Passing weather deterioration area

Deck monitoring
In case of abnormality
Notify the wheelhouse

My idea features

Deck monitoring and external monitoring possible without any outside activity of the crew when a dangerous situation occurs
Especially when passing through a region where pirate ships appear,
When passing through weather deterioration area
It helps.

It will help you to order ships from ship owners.

Production period

1/2 model 2 months
1/1 model 3 months
Prototype 6 months
Prototype testing period 1 year
Estimated total 2 years

Down payment 50 million won
1/2 model production cost 50 million won
1/1 model production cost 150 million won
Prototype costs over 200 million won (payable upon addition)
Patent fee
1 year 100 million won + Ship building cost 0.1%
(Tax is not included)

1/2 model 2 months
1/1 model 3 months
Prototype 6 months
Testing period 1 year
2 years

Down payment 50 million won
Model cost 200 million won
Prototype products 200 million won or more (company support in case of addition)
Patent fee
1 year 100 million won + Ship building cost 0.1%

*This document is a translator.
May be somewhat different.

Please contact me if you need a document in Korean.

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