FURUNO
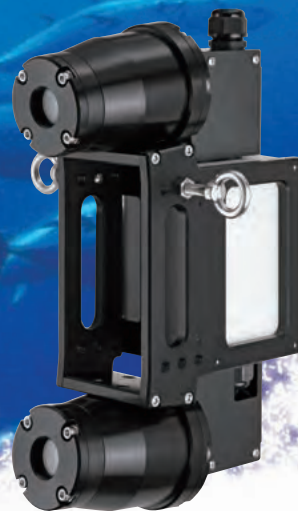
AI Fish Weight Estimation Camera
Model UC-300/600

*Lightweight, compact and easy to operate
AI Analysis to Improve the Efficiency of
Fish Farming Operations.*

Model UC-600

Model UC-300

Easy operation

Optimize feeding by precise fish weight estimation

UC-300/600 monitors the growth of fish inside a cage. It captures images of the fish and AI analysis provides fish weight distribution and the average of fish weight.

The system consists of 3 units; "camera unit", "communication unit" and "smartphone".

For small cages

Model **UC-300**

Target fish: yellowtail, amberjack, sea bream, salmon, etc.

For large cages

Model **UC-600**

Target fish: Bluefin tuna, yellowtail, etc.

Features

✓ **Compact design**
Lightweight and **portable**.

✓ **Design for simple operation**
User friendly and **simple operation** makes it easy for anyone to handle.

✓ **Precise measurement**
Furuno's unique image processing technology allows **clear recognition even in murky sea water**.

✓ **Rank indication according to reliability**
The results are displayed by **rank according to the confidence level of the analysis results**.

✓ **Exceptional Customer Service**
Based on Furuno's technology and accumulated knowledge, **we provide optimal analysis and customized support to our customers**.

POINT *Grasp fish growth by AI analysis!*

All the data recorded by UC-300/600 are analyzed by AI software on cloud to measure fork-length and body height of the fish, and to estimate fish weight according to the customized algorithm for each customer. Based on the analysis results, optimal feeding and production plans can be established to realize an efficient and stable fish farming business.

Aqua Scope (examples)

Dashboard — Top page of Aqua Scope. The latest status of all fish cages in the site can be checked at a glance.
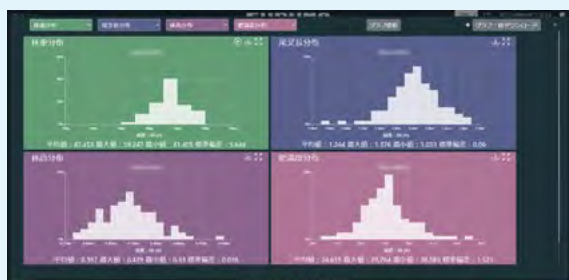
Growth comparison between cages — You can check the growth curve of farmed fish for each fish cage over time.

Distribution of measurement data — Visualize the distribution status of up to 4 data such as weight, fork-length, body height, and condition factor.

2-axis graph display — Compare two data, such as average weight and average condition factor, over time.
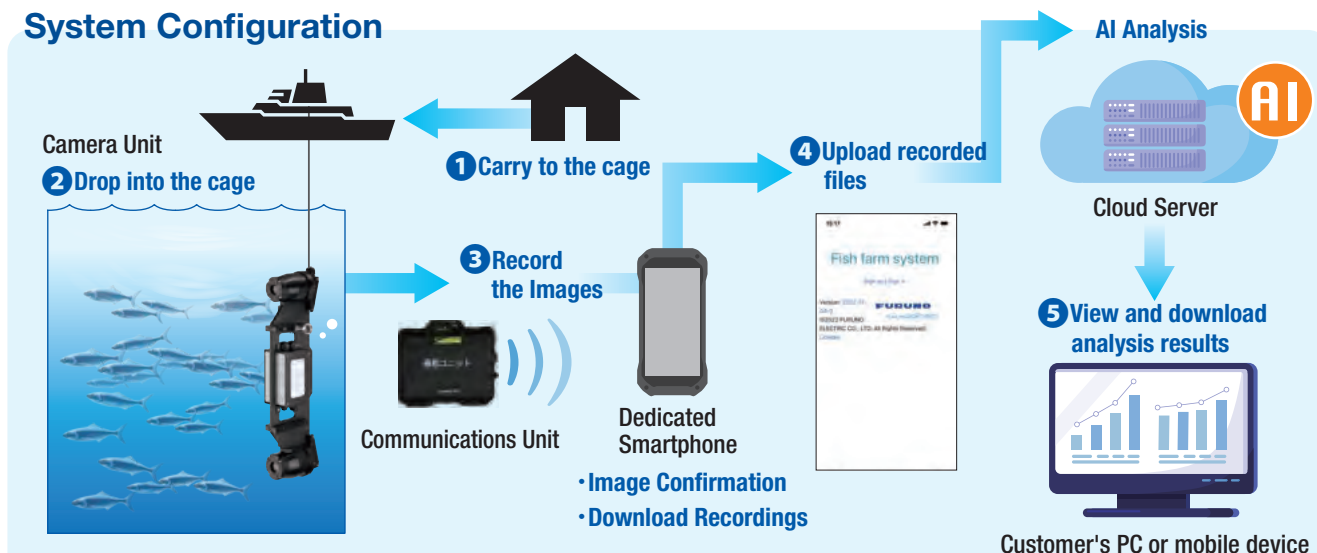
POINT *Easy to use!*

1. Carrying UC-300/600 to the cage.
2. Connect the camera unit to the communication unit and drop the camera unit into the cage.
3. The camera unit records images while monitoring inside of the cage with the dedicated smartphone. Files recorded by the camera unit are downloaded to the smartphone.
4. Upload the recording files to the cloud server dedicated for AI analysis.
5. View and download analysis results by logging into the dedicated web application from your PC or mobile device.

System Configuration

AI Analysis

Camera Unit
2 Drop into the cage

1 Carry to the cage

4 Upload recorded files

Cloud Server

3 Record the Images

Communications Unit

Dedicated Smartphone
· Image Confirmation
· Download Recordings

5 View and download analysis results

Customer's PC or mobile device

* Internet access is provided via Wi-Fi or LTE (4G) line at the customer's office. 4G requires a SIM card to be arranged by the customer.

Stereoscopic camera for AI fish weight estimation

Model UC-300/600

Specifications

Camera Unit

Model	UC-300	UC-600
Image Resolution	1936 × 1464 pixel	
Focal length	0.5～1.5 m	1.5～5 m
Target fish species	yellowtail, amberjack, sea bream, salmon, etc.	Bluefin tuna, yellowtail, etc.
Cable length	Standard 20 m *Other lengths up to 40 m are also available.	
Weight	8.8 Kg	11 Kg
Temperature range	0°C to + 40°C (in water)	
Degrees of Protection	IPX8	

Communications Unit

External dimensions	W363 mm × L282 mm × H120 mm
Weight	3.1 Kg
Power Supply	AC100 V, 50/60 Hz
Power consumption	50 W
Degrees of Protection	IP65

Dedicated Smartphone

*Kyocera Corporation product (TORQUE 5G KYG01).

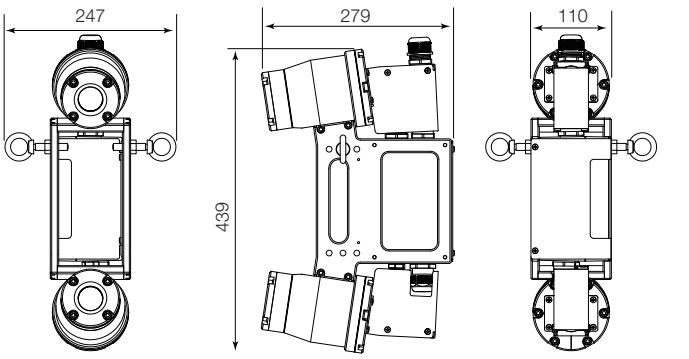### Complete fish weight estimation camera system

Power Cable

Communication Unit

Dedicated Smartphone

Camera Unit

*The power supply battery for the communication unit is to be arranged by the customer.

Dimensions

For small fish cages
UC-300 8.8 kg

(Unit: mm)

247   279   110   439

For large fish cages
UC-600 11 kg

183   219   110   736