



# VRush

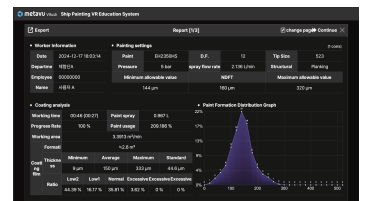
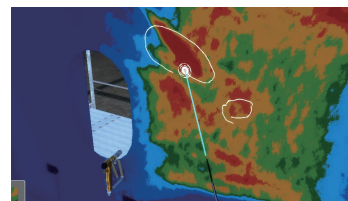
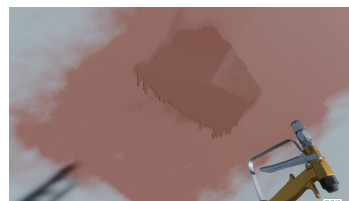
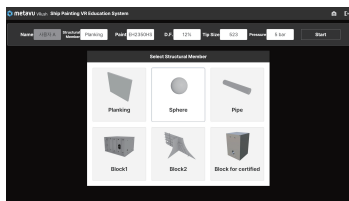
Virtual + Brush + Spray + Rush

The VRush system uses digital twin and VR technology to simulate real-world painting operations. It replaces traditional apprenticeship methods with standardized digital VR training for precise and systematic learning.



Developer :  | Co-developer :  

## Main features



### Versatile Learning Environment

Simulation of real-world operational settings.

Support for diverse component shapes.

Unlimited repetition without time or location constraints.

### Painting Material Properties Simulation

Realistic chemical characteristics of various painting materials.

Simulates effects like orange peel, overspray, or excess film buildup.

Adjusts variables such as nozzle tips, dilution ratios, and pressures.

### Real-Time Feedback System

Tracks spray gun speed, angle, and distance in real time.

Displays painting thickness using a heatmap visualization.

Provides tools for instructor monitoring and intuitive feedback.

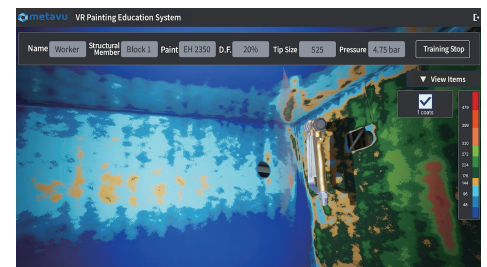
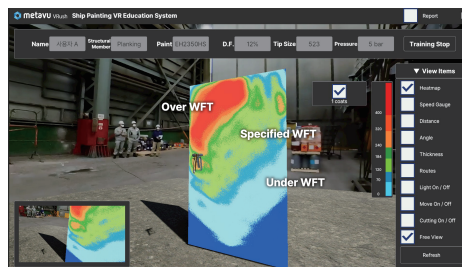
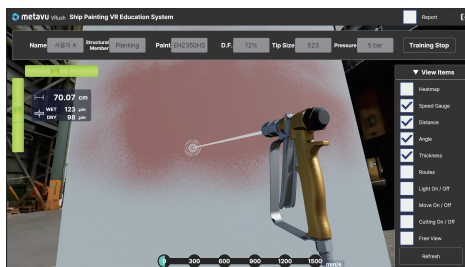
### Performance Evaluation Metrics

Measures work time, productivity, and project completion rates.

Analyzes spray volume, material use, and painting thickness.

Evaluates spray patterns for angle, distance, and speed accuracy.

## Key screens





## Implementation benefits



### Enhanced Training Efficiency

- Learn in a lifelike setting anytime



### Cost and Time Optimization

- Reduce material waste and expenses
- Systematic Workforce Development: Reduces turnover with structured training



### Safety-Centered Approach

- Prevent accidents with secure environments.



### Environmental Responsibility (ESG)

- Save materials and reduce waste.

## Delivery performance

### Training Simulator (VRush for ship)



### Painting Process Validation



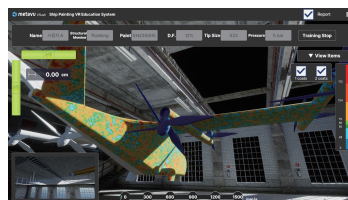
## Use case

### Ship Painting Training



- Simulates full-scale ship block models for realistic training.
- Incorporates marine paint and spray gun characteristics.
- Validated by certified ship painting professionals.

### UAM (Urban Air Mobility) Painting Process Validation



- Includes full-scale UAM aircraft model simulations.
- Features aviation-grade paints and spray gun specifications.
- Detailed analyses by certified industry experts.