

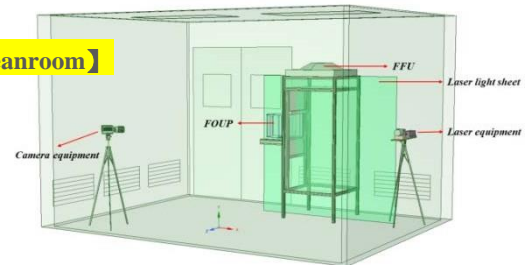
# Flow visualization equipment with large area measurement capability.



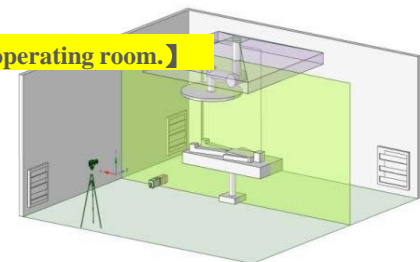
## ▶ Measurement Capability and Features

- ✔ The laser intensity does not decrease with distance.
- ✔ The device is portable and can be placed in a suitcase.
- ✔ Suitable for measuring air flow in various occasions.
- ✔ The equipment is developed by our laboratory team and has a cost advantage.

【in Cleanroom】



【in Clean operating room.】

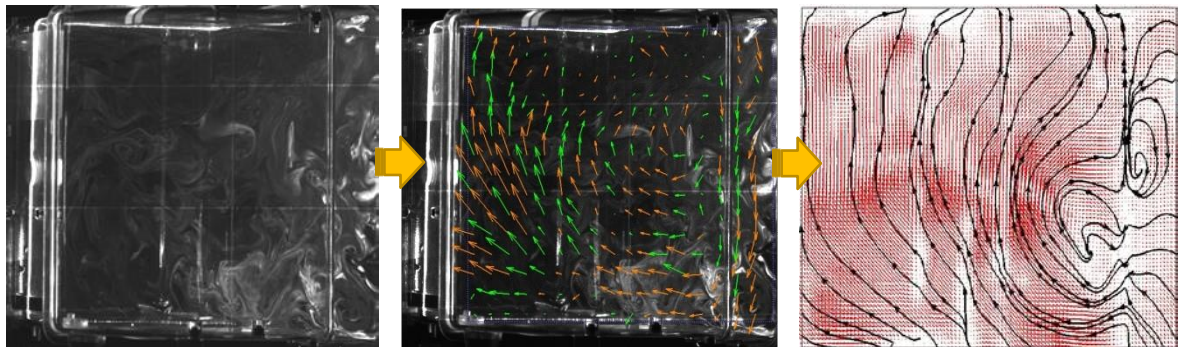


## ▶ PIV Software Introduction

Particle Image Velocimetry (PIV) is an optical technique used to study flow visualization and measure instantaneous fluid velocity. This method involves illuminating a fluid that contains tracer gas or particles, making the particles visible, and calculating the distance that the particles move in a unit of time to obtain the velocity and direction of fluid flow. The PIV software developed by our team has functions such as calculating vectors, streamlines, and more.

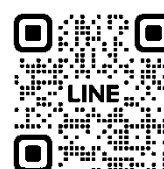
## ▶ Experimental Results (1/2)

Flow Field Observation  
inside Wafer when the  
door is opened.



聯絡方式

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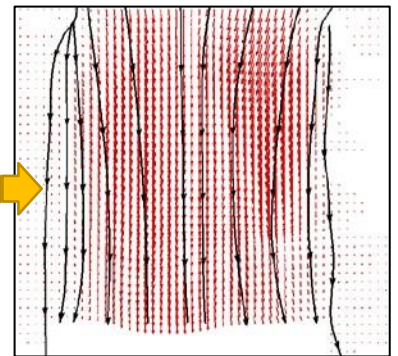
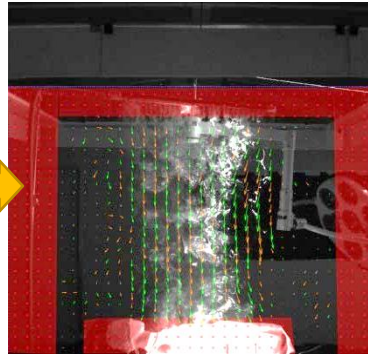
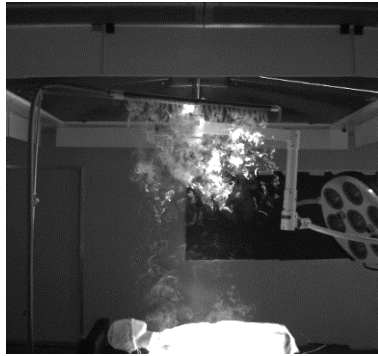


# Flow visualization equipment with large area measurement capability.



## ▶ Experimental Results (2/2)

Observation of Flow Field  
in Clean Operating Rooms



## ▶ Equipment Introduction

### Laser imaging scanning system



2W DPSSL –green light Laser  
+Scanning System

### HAMAMATSU CMOS camera



CMOS image sensor Effective  
number of pixels : 2048\*2048

### Oil Mist System



Power : 900W , Voltage : 110V  
Air Source :  
1. Compressed Air  
2. DC Blower

### Water Mist System



Humidification Capacity: 11L/hr  
Power: 540W , Voltage: 110V  
Dimensions: 66 x 30 x 35 cm<sup>3</sup>

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