


# Keyence VHX-5000 Microscope

Keyence	
 A photograph of the Keyence VHX-5000 microscope system. It includes a black microscope unit on the left, a computer monitor in the center displaying a blue-tinted microscopic image of a textured surface, and a keyboard on the right. The entire setup is on a white reflective surface.	
<b>Tool Type:</b>	Observation and measurement / imaging
<b>Location:</b>	Microfluidics Lab
<b>Description:</b>	Microscope/camera
<b>Manufacturer:</b>	Keyence

## About

The Keyence microscope is a semi computer controlled microscope that is capable of taking precision measurements from large depth of field images under high magnification. This microscope features both backlighting and top lighting, and has a computer controlled movable stage which can be used to pan across the object you are viewing. This microscope has a motorized objective which can be used to image parts with a large depth of field to create a single in focus image with depth mapping data. The motorized stage also allows for the stitching of several images to create larger high magnification pictures.

## Safety Concerns

- Do not leave lighting elements on
- Do not crash the objectives
- If replacing the bulb in the MI-150 wear gloves to avoid getting oil on the halogen lamp bulb

## Training Documentation

[Keyence SOP](#)

## Detailed Specifications

- 17 mm/s Z travel
  - Objective rotation up to 90 degree angle from normal stage axis
  - Image stitching up to 20,000 x 20,000 pixels
  - Optical zoom from 0 to 1000x
  - 50 FPS max framerate
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## Reference Documentation

[STL Converter Manual](#)

[Brochure](#)

[Field of View and Pixel Size Chart](#)

[Intermediate Quick Start Guide](#)

[Quick Start Guide](#)

[Exporting Keyence 3D data to STL](#)

[CSV to STL project documentation](#)

(Matlab script to come)

[VHX lenses](#)

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Last update: **2023/01/05 22:35**

