

# Keyence VHX-5000 Microscope

## Keyence VHX-5000 Microscope



**Tool Type:** "Observation"

**Location:** "Microfluidics Lab"

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**Description:** "Microscope"

**Manufacturer:** "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.

## 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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## 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
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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 3D data to CSV

(This software can be found on the CNC computer in uFL 3430)

CSV to STL project documentation

(Matlab script to come)

[VHX lenses](#)

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