Keyence VHX-5000 Microscope

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Tool Type: “Observation”
Location: “Microfluidics Lab”

Supervisor	Tool Lead
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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 o to 1000x
- 50 FPS max framerate

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
