

OPU Lens Distance Specs Supplemental Document

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This document provides useful information for developing an imaging head for a microscope.

Distance Specification

The lens in question is shown in Figure 1.

This lens was mounted to different cameras, in order to obtain approximate mounting distances for microscopy. Estimates of these distances (front of lens to camera surface) are given in the table below:

Table 1: Cameras and Distances

Camera Type	Mounting Distance
PiCamera	4.0 mm
iPhone 8	2.5 mm
LG G7	2.5 mm

Some imaging of a wire was also done with the above setup, and the imaging distance (distance between the top of camera-lens assembly and top of wire) are listed below:

Table 2: Cameras and Imaging Distance

Camera Type	Distance from Sample
PiCamera	1.0-2.0 mm
iPhone 8	2.0 mm
LG G7	3.0 mm

The suggested lens assembly is shown in Figure 2. Simply cut a small straw (close to 4 mm in diameter, slightly wider) and glue the lens, so that flat side faces out.

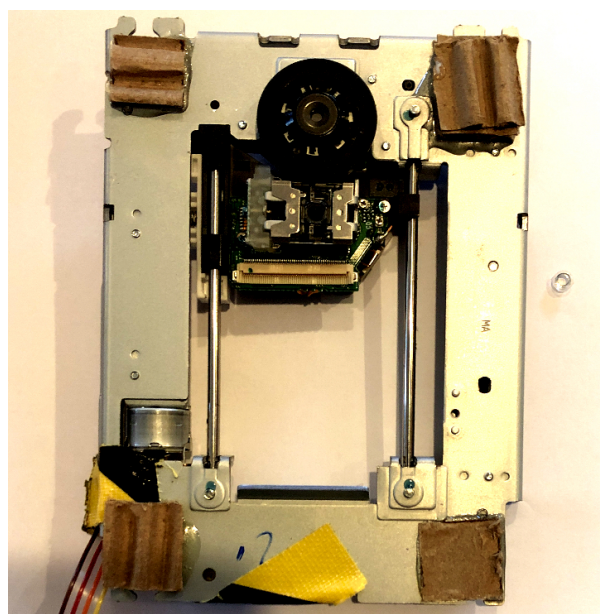


Figure 1: Extracted DVD OPU lens with OPU.



Figure 2: Suggested lens assembly.