Project 3: Splitting fluorescence to two sensors
Supervisors: Gil Bub/ Alex Corbett

Goals: To build an optical component that splits light to independent sensors for two color fluorescence microscopy.

Skill Set: Optics; alignment; understanding aberations; image capture

Day-to-day:

Tuesday: Capturing fluorescent images through the side port; setting up an optical telescope; changing magnification for one sensor.

Wednesday: Splitting the light with a dichroic mirror; Integrating a second sensor with different magnification.

Thursday: Estimating performance characteristics of the optical system; synchronising image capture with two cameras; simple spatial filters in infinity space.

Friday Demo: Commercial dual view solutions

Presentation Goals:

- Understanding aberations and distortions for simple lenses
- Explain magnification, field of view and vignetting in your system.
- Compare the optical solutions used in the commercial system, price vs performance comparison.