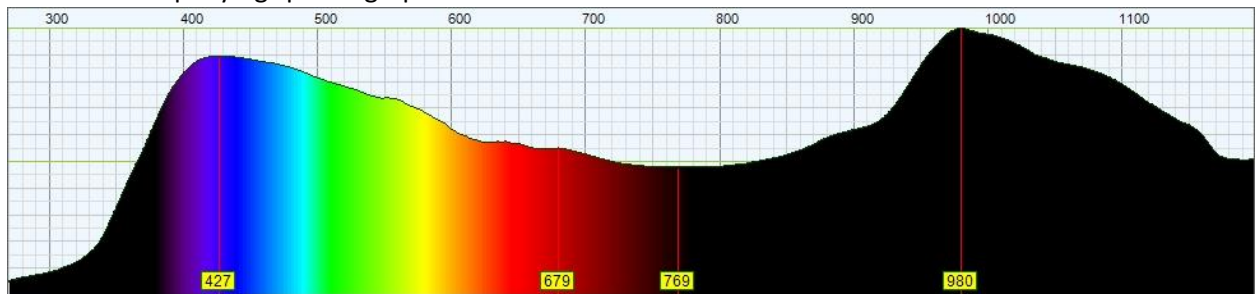


Webcam Teardown

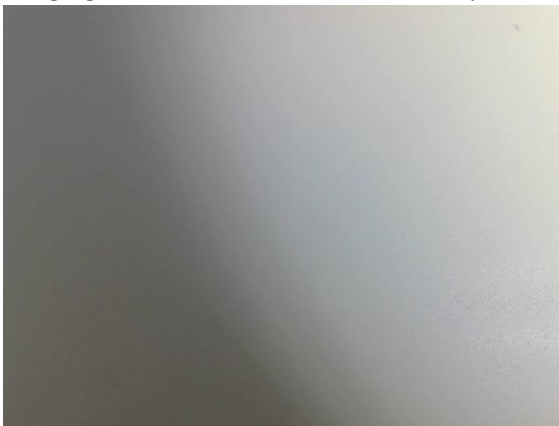
1. Initially I followed the webcam UV filter removal guide in *UV Detection via Webcams [5]*, but the Logitech camera that I was investigating (model unknown) does not have a discrete UV filter.
2. Below is a picture taken from the webcam without any modification.



And its accompanying spectrograph.



3. After removing a lens housing from the webcam, the CMOS chip was fully exposed, and the imaging became unfocused. Below is a picture taken from the exposed CMOS sensor.

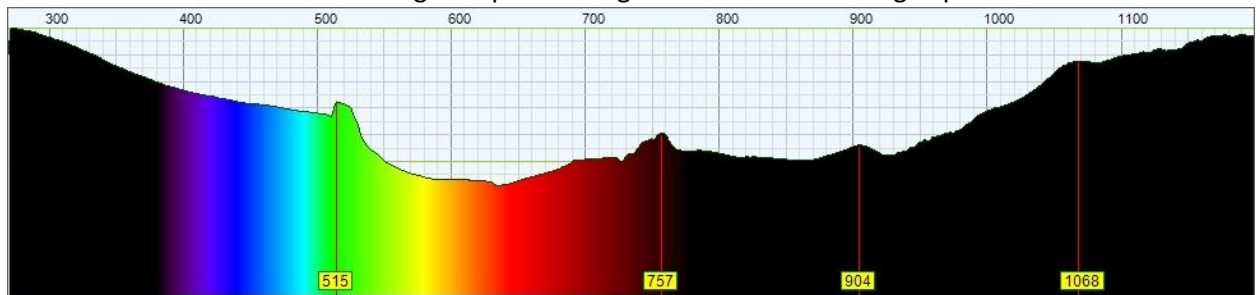


4. The lens housing contained 3 lenses. There was no apparent UV-filter on the housing, so I removed the lenses individually to see if there was one responsible for filtering UV-light.

Unfortunately, the lenses were damaged in this process and no longer properly focus the image, as seen below.



5. Somehow, without the lens housing, the webcam allows UV light to pass through. I believe the lenses are collectively filtering out the light which is why no discrete UV filter was discovered, but the camera did not allow UV light to pass through with the lens housing in place.



Notes

1. Dan showed Ashwin and me the Geosciences lab which has an ICPMS and a UV-Vis Spectrometer. The ICPMS was broken, but he demoed the UV-Vis, showing how to calibrate and run tests on it.
2. The Thermo spectrometer has arrived. With this, I can compare the results from the webcam to a more sensitive instrument at home. These results can be verified against the ICPMS in the lab.