SE4445 Glue Layer Analysis

Analyzing glue dispensing performance

	Coverage	**Glue layer thickness**
Purpose	Determine the area of the glue layer beneath a module as a percentage of the module area	Determine the thickness of the layer of glue underneath the module
Target range	75-85%	75-125 microns (ATLAS specification: 100^{+100}_{-50} microns)
Measurement strategy	Extract glue layer area from images collected of samples on a clean, solid, high-contrast background. Please note that a ruler or other clearly known dimension must be in the image frame to provide a pixel-real world coordinates calibration source.	Height gauge measurements
Analysis resources	Charlie created a MATLAB script for measuring coverage in images of dispensed samples collected on a clean white background. Alternatively, we can extract these areas with image processing tools like ImageJ.	Hannah and Rachel prepared Python-based scripts to analyze csv files containing height gauge measurement results. Jupyter Notebooks to run analysis directly from the gSheets are available here: https://gitlab.cern.ch/hherde/slac-itk-pixels-gsheet-analysis They started out as these (messy) scripts are available on GitLab: https://gitlab.cern.ch/hherde/slacpixelsanalysis