

Assembly Automation and Quality Control for Upgrades to the CMS Outer Tracker Modules

Last summer I worked at the Silicon Detector facility at Fermilab on automation and quality control techniques for 2S and PS sensor modules that are going into CMS at CERN in order to prepare it for the high luminosity era of LHC. While there, I worked on a laser scanning procedure that ensured that 2S sensor modules were manufactured to the proper specifications, as well as an automated gluing process that will be used to accurately manufacture PS sensor modules. These processes will be used to ensure that all the sensors going into the CMS upgrade have been manufactured properly and can collect data accurately.

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