

## Compact Muon Solenoid Forward Pixel Upgrade

High-Luminosity Large Hadron Collider (HL-LHC) upgrade aims to increase the performance. In order to efficiently handle the larger particle flux and increased radiation, an upgrade is planned for the Forward Pixel part of the inner Tracker of the Compact Muon Solenoid (CMS) detector, which is located at the innermost part of the CMS. To maintain efficiently reconstruct and track particles, the current pixel tracker will be improved with new sensors, readout chips, and front-end electronics to manage higher data rates. These improvements will allow the detector to track particles more precisely. In the United States, we are working on assembling new sensor modules, referred to as TFPX, for installation in the CMS detector for the HL-LHC era. We are currently testing prototype versions of TFPX modules to ensure the upgrade is carried out in the best way possible. The University of Illinois Chicago has been tasked with testing the final versions of the TFPX sensor modules before they are sent to CERN to be installed into the CMS detector.

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