

Abstract Submitted
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Assembly and test of the modules for the CMS Forward Pixel Phase 1 Upgrade JOSE MONROY¹, University of Nebraska - Lincoln, CMS COLLABORATION — The phase 1 upgrade of the CMS pixel detector will replace the existing pixel detector at the end of 2016 in an extended technical stop. The phase 1 upgrade includes four barrel layers and three forward disks, providing robust tracking and vertexing for LHC luminosities up to $2.5 \times 10^{34} \text{cm}^{-2} \text{s}^{-1}$. The upgrade incorporates new readout chips and front-end electronics for higher data rates, DC-DC powering, and dual-phase CO_2 cooling to achieve performance exceeding that of the present detector with a lower material budget. The design of the forward detector is presented along with present status of module assembly and qualification. The procedures used during the module assembly are discussed in detail.

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