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DAQ Test System for CMS Tracker Upgrade Phase 2

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For the upcoming high-luminosity phase of the LHC, the tracking detector of the CMS experiment has to be upgraded. Two types of detector modules are foreseen to be used for the outer tracker regions: so-called 2S and PS modules. Each module type consists of two semiconductor sensors with corresponding front-end electronics for the readout.
For the future module production at DESY, testing infrastructure is being developed, based on the FC7 board. The FC7 is a ☒TCAcompatible Advanced Mezzanine Card for generic data acquisition and control applications. Developed by Imperial College London and built around the Xilinx Kintex 7 FPGA, the FC7 provides a large array of configurable I/O ports, primarily delivered by on-board FPGA Mezzanine Card (FMC) headers, which give the opportunity to establish an optical or electrical interface between the FC7 and the front-end electronics of the CMS tracker's modules.
This talk will present the development status of the FC7 firmware and very first test results.

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