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FASER (ForwArd Search ExpeRiment) DEION FELLERS, University of Oregon, FASER COLLABORATION — The design, expected sensitivity, and current construction status of the FASER detector are presented. The FASER detector is in the final stages of construction in preparation for taking data starting in 2022 during Run 3 of the LHC. FASER is dedicated to searching for long-lived particles beyond the standard model. Though extremely rare, such particles may be produced in the high intensity far-forward region of the LHC's proton-proton collisions. These particles may then decay to visible standard model particles within FASER, which is located 480 meters downstream of the ATLAS interaction point. This talk depicts a possible mechanism for the production and detection of a Dark Photon with the FASER detector. The motivation for the design of the FASER detector is also presented.

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