

Design and Operation of the Mu2e Target Remote Handling System

Thursday, 7 June 2018 10:00 (20 minutes)

The Mu2e experiment currently being designed and built at Fermilab will utilize a small tungsten target located in the middle of a long cylindrical vacuum chamber, which is then located inside a large superconducting solenoid. The radioactivity level of the target is very high at 3.3kSv/hr (contact) and the frequency for replacing this target is planned to be once per year. To perform this task, a remote handling system is being developed at Fermilab that utilizes 2 robotic machines - one to remove/replace the access window, and another to remove/replace the target. The design of the Mu2e remote handling system will be presented. Additionally, the most recent progress made to build the target handling machine will be discussed, including videos of the machine in autonomous operation both installing and removing targets.

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