Contribution ID: **208** Type: **Poster (Student, Not in Competition) / Affiche (Étudiant(e), pas dans la compétition)**

DEAP-3600 Optical Calibration Systems.

Wednesday 18 June 2014 19:12 (2 minutes)

The DEAP-3600 dark matter detector uses 255 photomultiplier tubes (PMTs)
to detect scintillation light induced in liquid argon by nuclear recoils caused by hypothetical WIMPs.
We present here two systems that are used to calibrate and monitor
the properties of the PMTs and the overall detector response.
The fi rst calibration method utilizes an LED optical flasher source, deployed directly inside DEAP-3600
and extracted before the detector is filled with liquid argon.
In the second calibration system, which is installed permanently in the detector, light reaches the PMTs through a fi bre optic
cables connected to injection points located in their vicinity.
Details of both systems and their installation will be presented, together with the simulated performance.

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Session Classification: PPD Poster Session, with beer (7) / Session d'affiches PPD, avec bière (7)

Track Classification: Particle Physics / Physique des particules (PPD)