

QA/QC ND LAr Calibration

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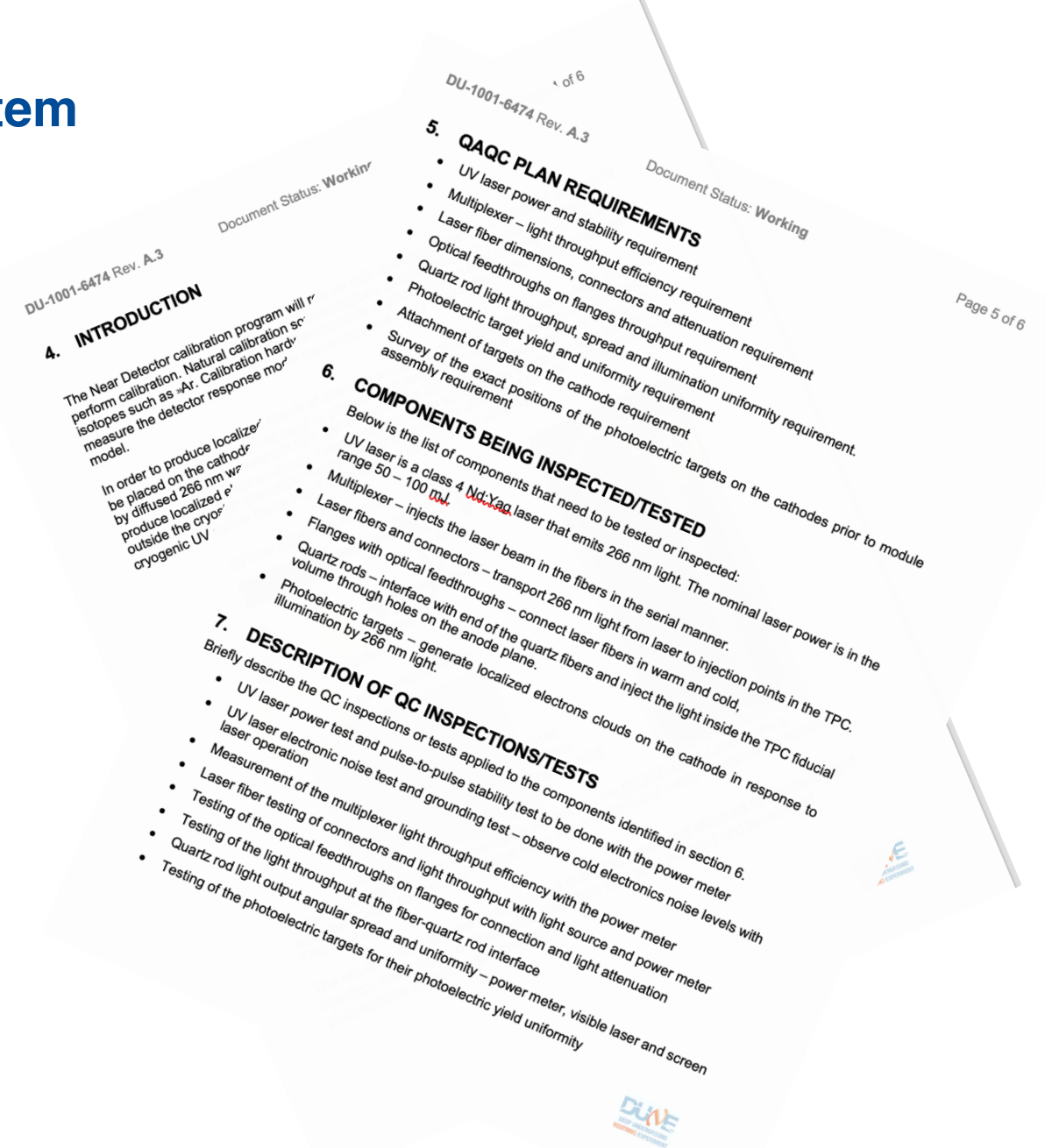
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List of Calibration System QA/QC documents

Document name	EDMS number
QA/QC Plan for ND LAr calibration	2617454
Manufacturing Plan for ND LAr Calibration	2617469
Procurement Plan for ND LAr Calibration	2617478

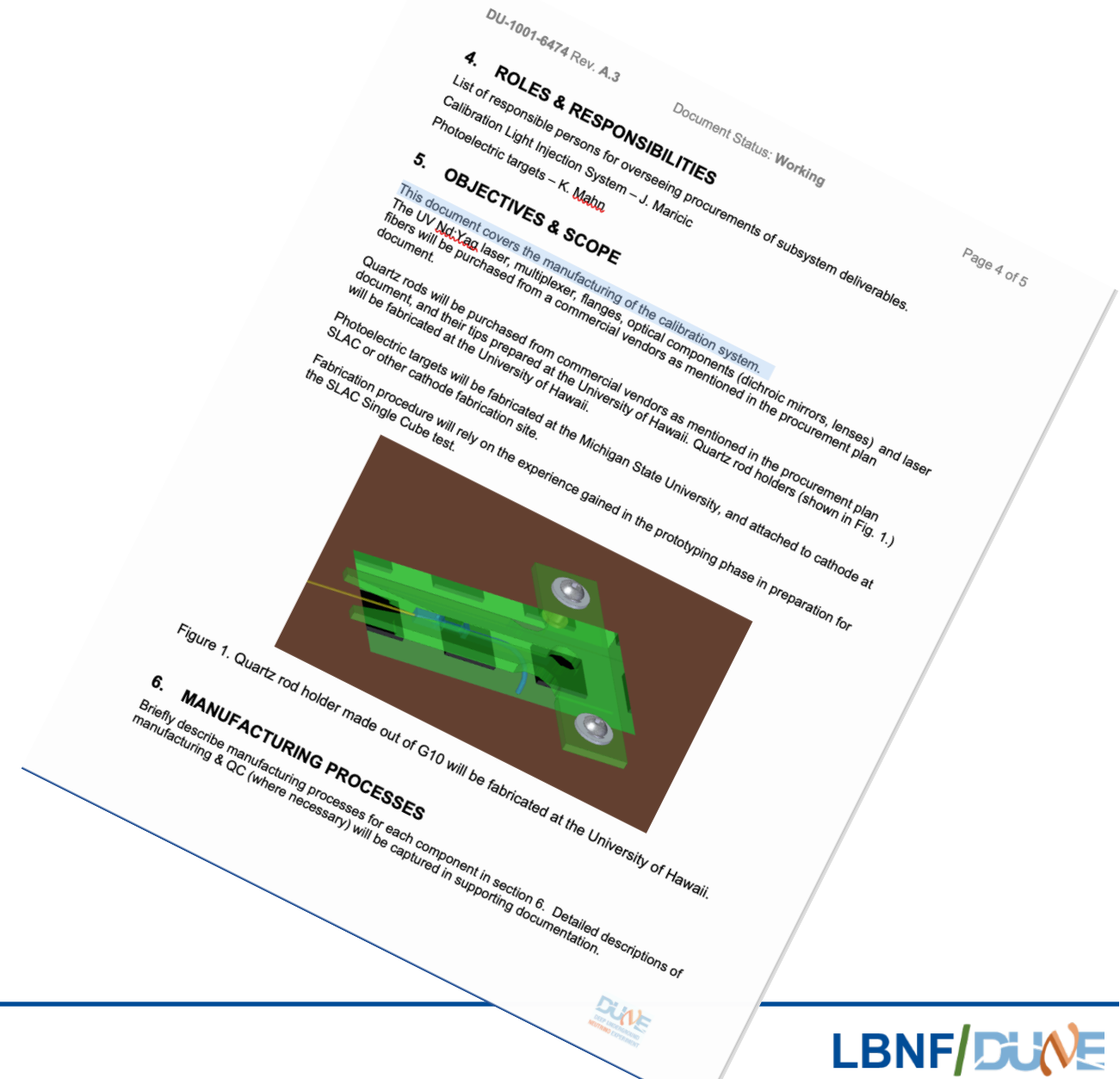
QA/QC Plan: ND-LAr Calibration Subsystem

- QA/QC Plan at: EDMS 2617454
- Based on experience from prototyping tests at UH and MSU
- Plan covers:
 - Calibration QAQC Requirements → OK
 - Components Being Inspected or Tested → OK
 - Description of QC Inspections and Tests → OK
 - Test Locations → OK
 - Technical Justification of Inspections and/or Tests → Missing



Manufacturing Plan: ND-LAr Calibration Subsystem

- Manufacturing Plan at: EDMS 2617469
- Based on experience from prototyping tests at UH and MSU
- Plan Covers
 - Roles and Responsibilities → OK
 - Objectives & Scope → OK
 - Manufacturing Processes → Started
 - Materials → Started
 - Inspection Requirements → Missing
 - Shipping → Missing



Procurement Plan: ND-LAr Calibration Subsystem

- Procurement Plan at: EDMS 2617478
- Based on experience from costing exercise for the system and preparation for the SLAC Single CUBE test.
- Plan Covers:
 - Key Items to be Procured and Timelines → Started
 - Procurement Management → OK
 - Vendor Management → OK
 - Approval Process → Missing

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4. PURPOSE AND SCOPE
 This Procurement Plan describes the procurement processes and methods to acquire the goods and services necessary for the assembly and installation of the Calibration system for ND-LAr. Developed and maintained by the ND-LAr Consortium, this Procurement Plan is a living document. This document specifies the plan that will be implemented to ensure procurement contracts can be efficiently awarded and executed while minimizing technical, cost, and schedule risk to the DUNE Project.

5. KEY ITEMS TO BE PROCURED AND TIMELINES
 The following table summarizes the components of the calibration system, quantity, vendor, lead time, purchaser and delivery location.

Item	Quantity	Cost	Vendor	Lead time	Purchaser	Deliver to
1 UV Nd:Yag 266 nm laser	7		https://www.quantel-laser.com/	30 days	University of Hawaii	University of Hawaii
2 Laser fibers	210 m		https://www.thorlabs.com/	30 days	University of Hawaii	University of Hawaii
3 Multiplexers	7		https://avantes-ukraine.com.ua		University of Hawaii	University of Hawaii
4 Flanges	210		https://www.sgs-fiberoptics.com		University of Hawaii	University of Hawaii
5 Optical components	7		https://www.edmundoptics.com/		University of Hawaii	University of Hawaii
6 Power meter	210		https://www.thorlabs.com/		University of Hawaii	University of Hawaii
7 Quartz holder rod	10,500		Custom made		University of Hawaii	University of Hawaii
8 Photoelectric targets			Custom made		MSU	MSU

6. PROCUREMENT MANAGEMENT
 The procurement of parts as well as manufacturing of the targets and holders will be handled by the calibration subsystem managers at University of Hawaii and Michigan State University.

7. VENDOR MANAGEMENT
 The vendors mentioned above were identified during the prototyping stage at the University of Hawaii

Remaining Issues

- Remaining Issues
 - Full development of documents
 - Missing description of alternatives (finalize early next year)
 - Details of testing need to be developed
 - Lay out manufacturing process
 - Refine cost table
- Next Steps
 - Finish prototyping and develop detailed documents