

Project	CERN-TMS
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Reference	Cern-tms/status-3
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1. Overview

The PUPE hardware PCB's are about to have the components installed, all of the external system hardware has arrived and is under test, The Firmware and Software continues in development. There has been a slight slipping of the schedule due to delays in the PUPE boards PCB production.

2. Work Done

The following work has been performed:

- The TMS cPCI racks, Module Controllers and Network switch has arrived. This completes delivery of all of the hardware from external vendors.
- The Linux system for the Network boot Module Controllers and System Controller's is now complete and has been installed and tested on the actual TMS hardware including the System Controllers and Module Controllers.
- The first pass TMS software is now complete and runs in a limited simulation mode on the TMS system hardware
- We have implemented a simple GUI and a command line control application to aid with testing the system and to act as a control and test interface for CERN.
- We have created some basic test signals and a simple FPGA State table generator to configure the FPGA PLL State and Phase tables for test purposes.
- We have built the test leads and level shifting system to allow the TMS Signal Generator to connect directly to the PUPE engines for system testing.
- The PUPE board PCB's have arrived, slightly later than expected. Unfortunately there was a slight placement problem with the cPCI connectors resulting in an additional short delay. The Board should have the components installed early next week. Later next week we will know the functional status of the PUPE boards.
- The PUPE FPGA design is now awaiting the PUPE hardware for integration and test.

3. Parts Arrived

The following TMS hardware has arrived from vendors:

- 4 x Compact PCI Module controllers, Completing the delivery.
- 2 x cPCI Full Racks.
- 2 x cPCI Part racks for development, test and support.
- 1 x Network Switch.

All external parts have now arrived.

4. Current Schedule

The project schedule is slightly behind the schedule stated last month. The detailed project schedule is at: <https://portal.beam.ltd.uk/support/cern/schedule.php>. The main risk for delay is how well the first PUPE engine hardware boards function.

The basic schedule information is:

Major TMS components arrive	March 9th
CPIC racks arrive	March 30th
PUPE Hardware prototype boards working	March 30th
PUPE FPGA firmware Alpha level	April 6th
PUPE Software Alpha level	April 6th
Pre-Series Unit Complete	May 4 th (Likely to be delayed until May 11th)