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A Proposed CEBAF Diagnostics Upgrade

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The Continuous Electron Beam Facility (CEBAF) has been in operation since 1994. The accelerator has seen several upgrades to RF and cryogenic systems and capabilities. However, the diagnostics used for beam delivery have remained largely unchanged. With several challenging experiments on the way and obsolescence issues with existing hardware, the time has come to explore a significant upgrade to CEBAF's diagnostic capabilities. The primary focus for the upgrade will be the development of a next generation beam position monitoring system along with a new accelerator timing and synchronization system. Research and development efforts are underway with prototypes for both systems in testing. Updates, plans, challenges and potential solutions will be presented.

Footnotes

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