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Project Charter

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| Project Name | LINAC Emittance Measurement Application |
| Project Code | LEMA |
| Account | 2961-004-EE-002 |
| Department | EE |
| Project Leader | Robert Gaul III |

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| --- | --- | --- | --- |
|  | Name | Signature | Date |
| Prepared By | Vasu Vuppala |  | 06/09/2010 |
| Reviewed By | Robert Gaul III |  | 06/09/2010 |
| Approved By | John Vincent |  | 06/09/2010 |

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Author | Description |
| 1.0 | 06/09/2010 | Vasu V | Initial version |
|  |  |  |  |
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# Project Overview

## Problem Statement

ReA3 is a new radioactive beam re-accelerator being commissioned for the Coupled Cyclotron Facility (CCF) and will be used in the Facility for Rare Isotope Beams (FRIB). The ion beam emittance in the transverse direction will need to be evaluated at different points during the beam’s travels. This project will collect data from slits and beam current monitors using EPICS, analyze the data, and graphically display the results to visualize monitor beam emittances.

## Project Description

This project calls for the development of the LINAC Emittance Measurement Application (LEMA). This application is essential for the commissioning and operation of ReA3’s LINAC. Development in C++ using Qt will allow portability, graphing capabilities, and easier communication with the hardware.

Refer to the “*LEMA Preliminary Project Plan*” for more details.

# Project Organization

## Authorities

|  |  |
| --- | --- |
| Customer | Oliver Kester, Marc Doleans |
| Sponsor | John Vincent |
| Project Leader | Robert Gaul III |
| Budget | 2961–Commissioning & Sys Inte |
| Work Order | 2961-004-EE-002 |

## Project Team

|  |  |  |  |
| --- | --- | --- | --- |
| # | Name | Group | Comment |
| 1 | Robert Gaul III | Design, Dev, Test, Doc | Approx 400 hours |
| 2 | Vasu Vuppala | Design, PM | Approx 50 hours |

## Milestones

* Project Plan
* Architectural Design
* Version 1.0 alpha (Data collection)
* Version 1.0 beta (GUI)
* Version 1.0
* Project Closure Report

## Stakeholder Register

|  |  |  |
| --- | --- | --- |
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# Glossary

# References

1. LEMA Preliminary Project Plan