Progress Presentation - I
e-Yantra Summer Internship-2017
Game Development with TI-RTOS

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Mentors:
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Objectives

- Learning Embedded System Concepts.
- Getting acquainted with the Tiva C TM4C123GH6PM Board.
- Concepts of State Machines and UML State Charts.
- Familiarization with RTOS and OS concepts.
- Game Design and Development using Quantum Framework.

Deliverables

- Completion of programming exercises on HWI, SWI, Clock, Tasks, Semaphores, Memory Management
- Tutorials on RTOS concepts.
- Graphical Game using TIVA Launchpad hardware and TI-RTOS.

Tasks Overview

Task	Deadline	Completed
Lab 0 - Installation	22nd May	24th May
Lab 1 - GPIO	23rd May	25th May
Lab 2 - Timers and Interrupts	25th May	26th May
Lab 3 - PWM	28th May	28th May
Lab 4 - ADC and UART	30th May	29th May
Lab 5 - GLCD	31st May	31st May
Lab 6 - RTOS Installation	1st June	1st June
Lab 7 - RTOS Scheduling	1st June	1st June
QF - Blinky	3rd June	3rd June

Tasks Accomplished

- Completed all 7 lab experiments, as enlisted on previous slide.
- Implemented example blinky code on Quantum Framework. here
- Developed a basic understanding of programming TIVA C using CCS, RTOS concepts, State Machines and UML State charts.

macOS Specific

- Tivaware Installation.
- Quantum Framework Support Issues.

Conceptual

- New concepts of State Machine Programming.
- Understanding of RTOS, Quantum Framework.

Future Plans

- Develop an understanding of intricacies of Quantum Framework, and Hierarchical State Machine Programming.
- Port an existing game onto Tiva C Game Console using QF/TI-RTOS.

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Akshay U
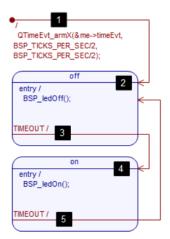Hegde,
Umang
Deshpande

Thank You!

State Machine of the Blinky AO

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