Archery Game using TI-RTOS

Group No: 21

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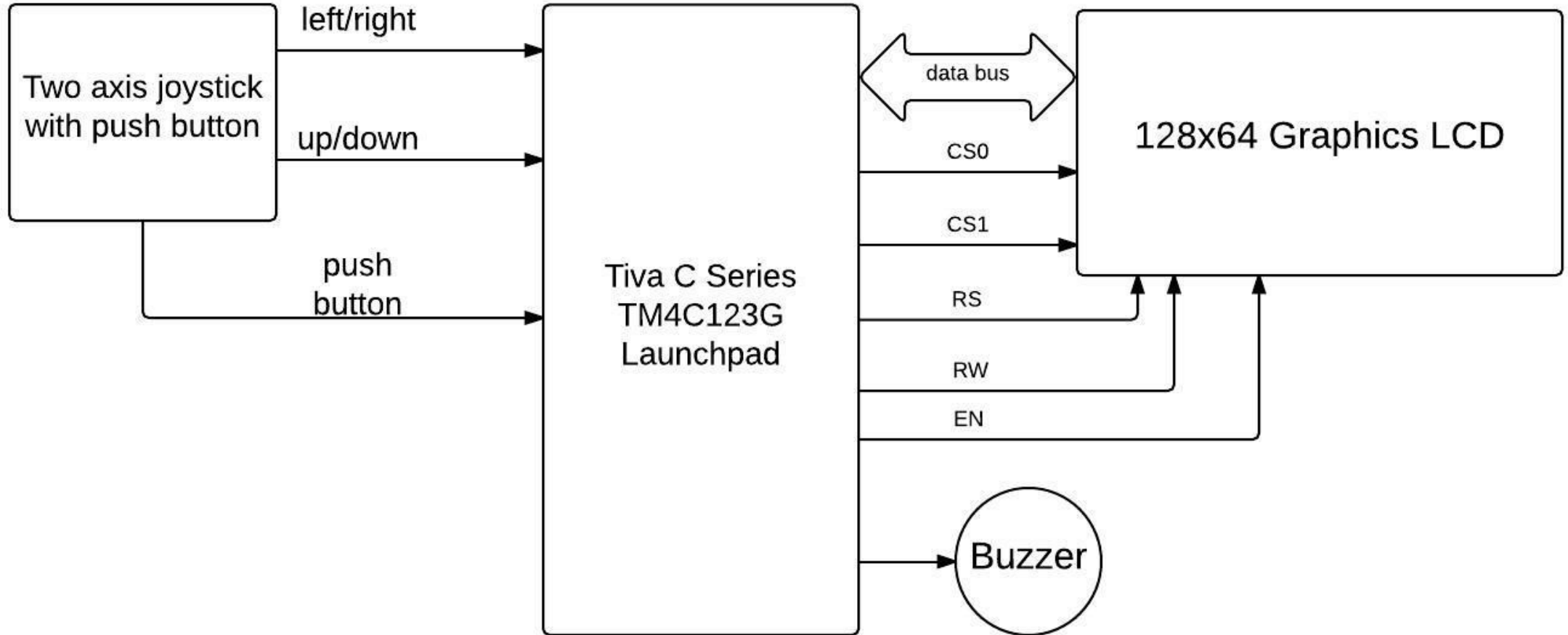Piyush Manavar (P10131) <p10131@iitb.ac.in>

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Abstract: Interactive archery game is implemented using TI-RTOS on 128x64 graphics LCD using two-axis joystick.
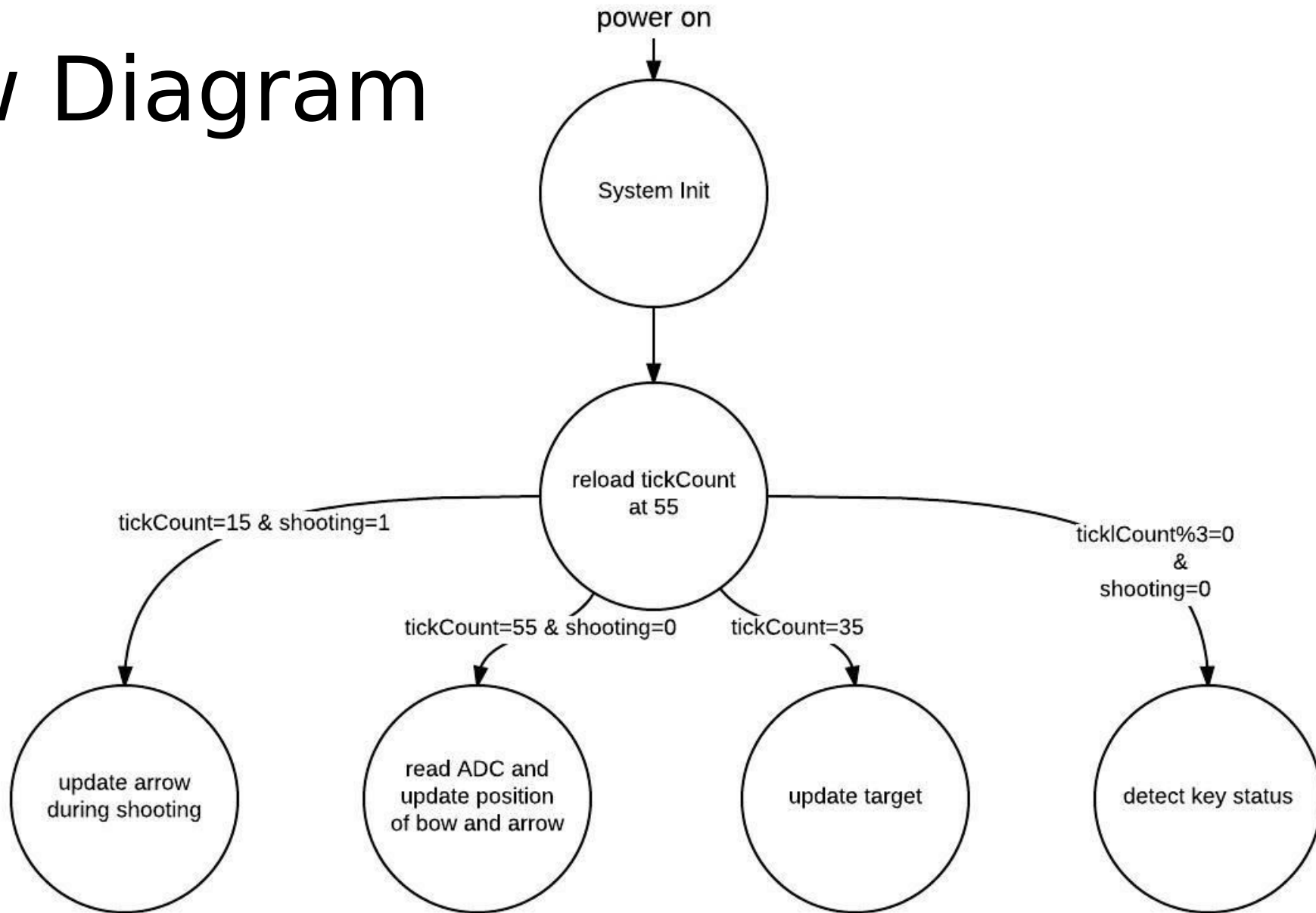
Project Objective

- Learning TI-RTOS

- Interfacing Graphics LCD to Tiva C series launchpad

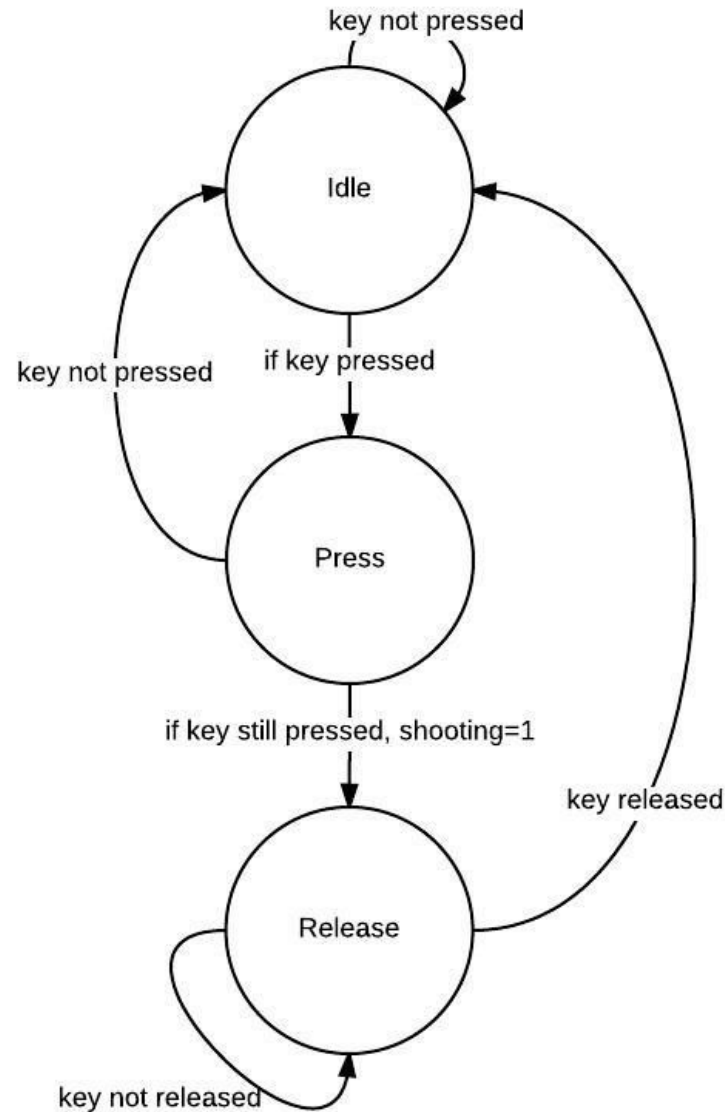- Developing algorithm for archery game

Block Diagram

Flow Diagram

State Diagram for software de-bouncing

key not pressed

Idle

key not pressed

if key pressed

Press

if key still pressed, shooting=1

key released

Release

key not released

Next State is evaluated
every 10 ms

Achievements

- Implemented archery game using TI-RTOS with a fixed scheduler for multiple periodic tasks

- Implemented selective modification of the graphics LCD on a particular section instead of writing to entire LCD for showing any change

Suggestions

- Implementation using event based RTOS