Rochester Institute of Technology

Real Time and Embedded Systems

Project 6 – Voltage Indicator Using Servos

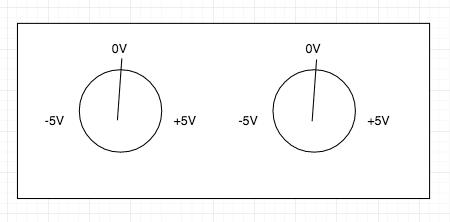
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**Overview**

This project is to demonstrate a communication between the QNX purple box and the STM development board. The action to demonstrate this involves the reception of a signal from a generator to the QNX system which is then processed by an onboard analog to digital converter and then passed onto the STM board which then deterministically resolves a PWM signal to drive a servo to an indicated position.

The servo’s position indicated the polarity and magnitude of the input signal from the generator, more specifically, the converted A/D code seen by the STM. These ranged in magnitude from -5V to +5V. With the involvement of 2 subsystems, division of development was needed and there were efforts to determine the responsibility of each system and how they were to communicate with one another.



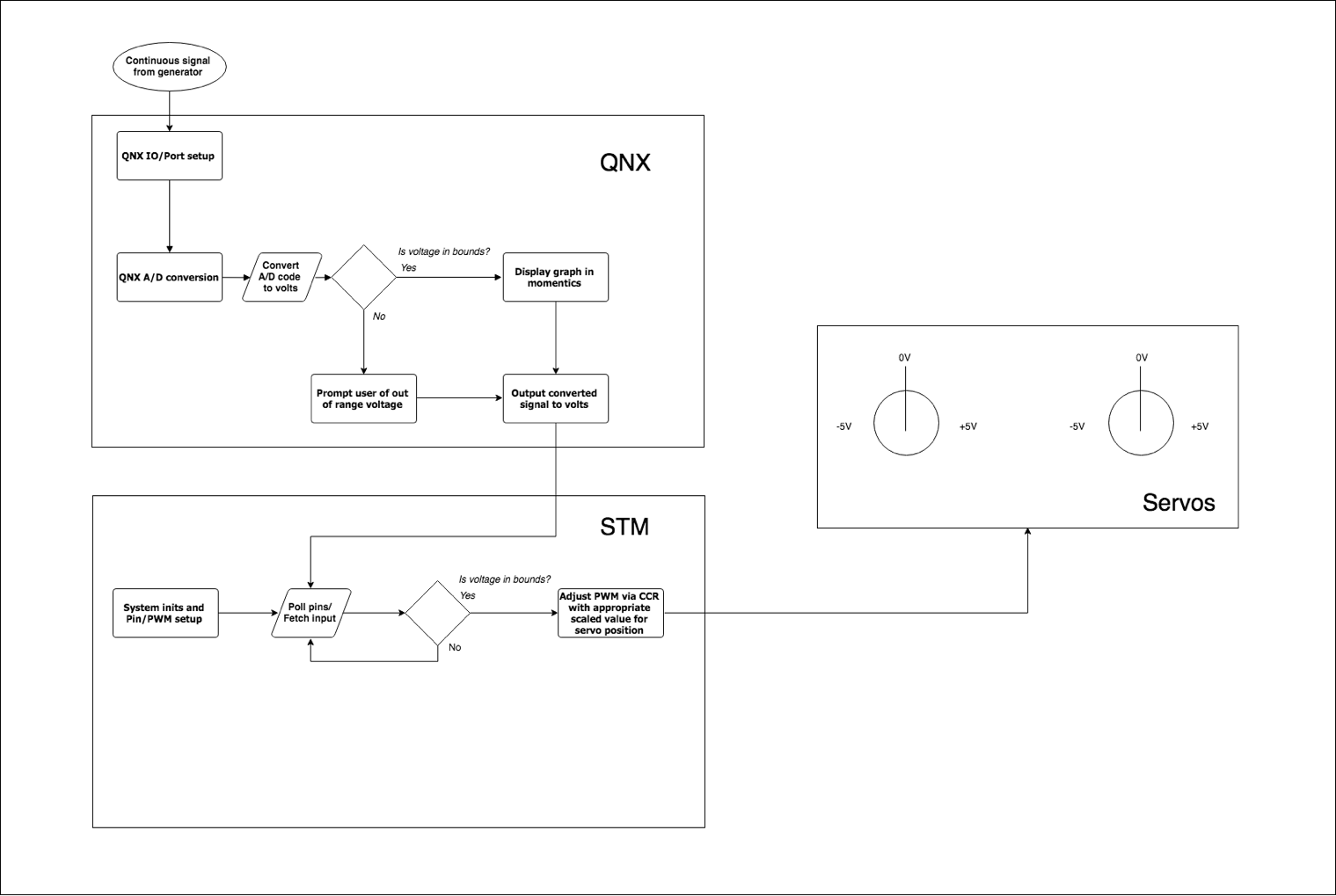
*Servo position indicating voltage*

**Areas of Focus**

Zachary Weeden: Report, QNX A/D conversion and port/pin setup, STM register update

Dinesh Bashkaran: STM pin setup and voltage validation

**Analysis/Design**



**Test plan**

**Project Results**

**Lessons Learned**