O.S.T.R.I.C.H. Positioning System

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Project Goal

O.S.T.R.I.C.H. is an indoor positioning system that allows stores to manage their inventory in real time and gives customers the ability to navigate to a desired product.

The system consists of the following:
• Small, inexpensive transceiver modules attached to each item in the store.
• A central hub that serves as a location anchor and relays location data to the database.
• Mobile/desktop applications used to display store information for customers.

Mobile Application

Current Progress

• Completed mobile application that interfaces with third-party transceiver modules, stores position information in databases, and displays item locations to user
• Preliminary parts list and progress toward printed-circuit board (PCB) layout
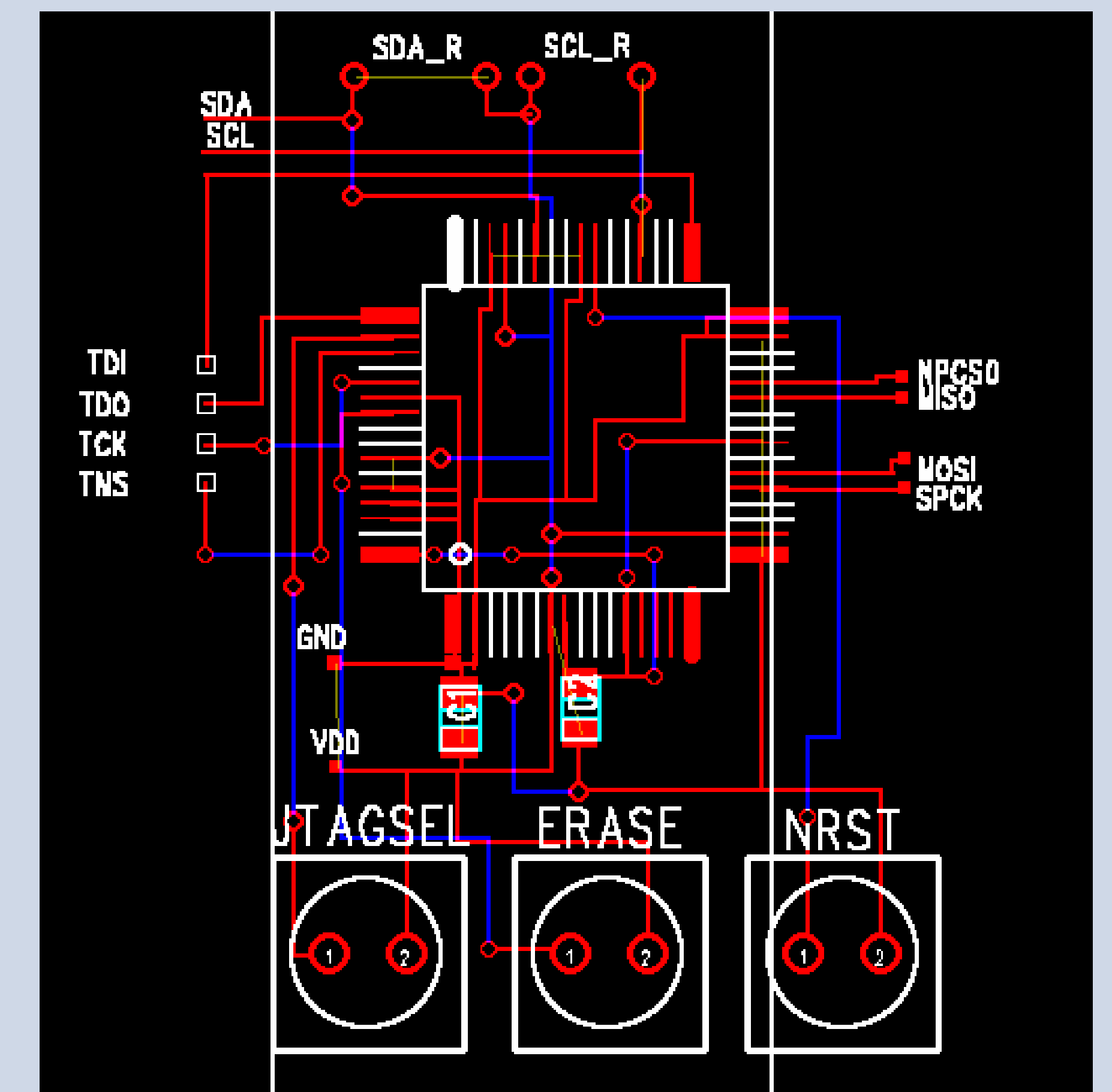
System Diagram
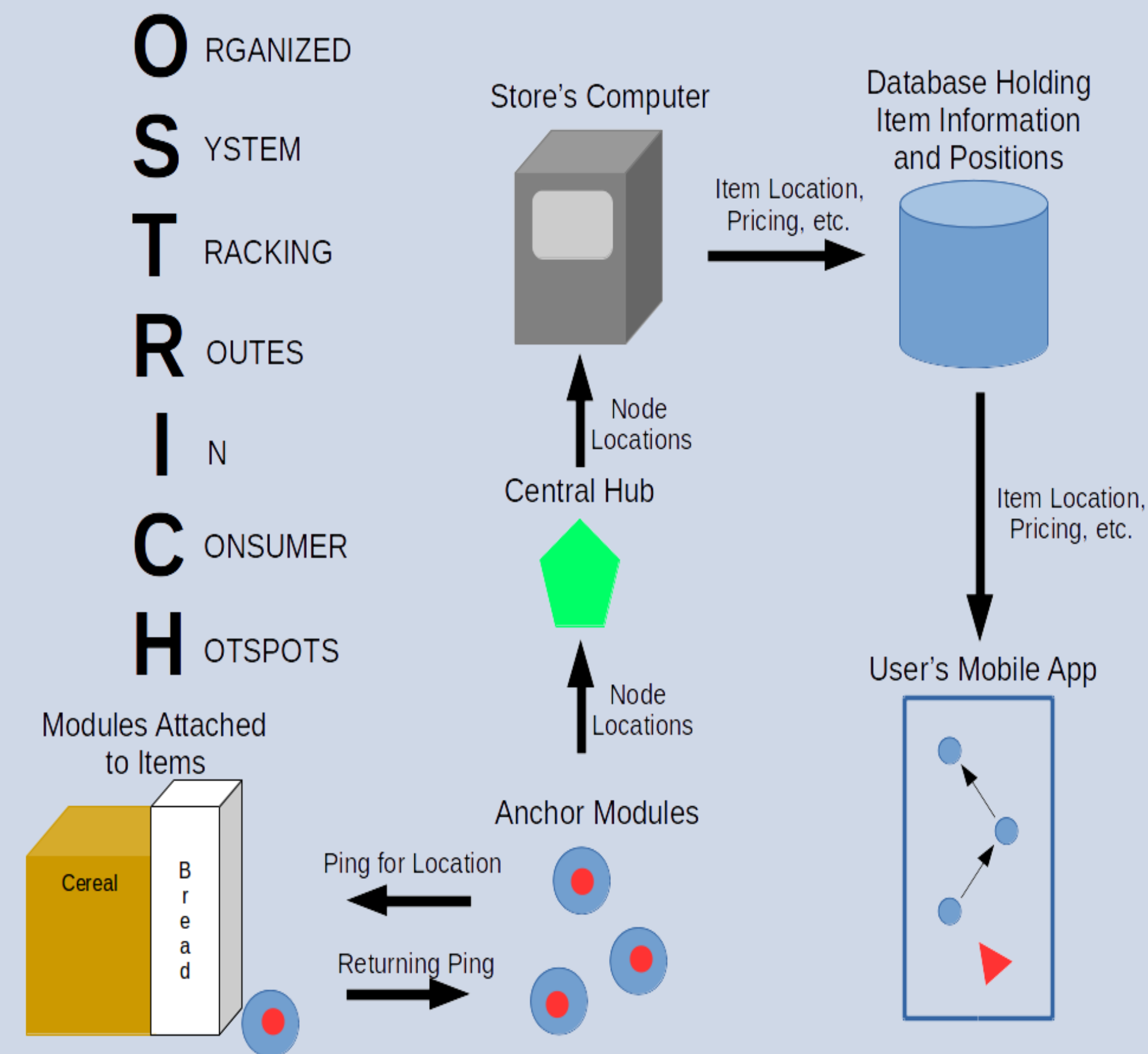
Q1 Objectives

• Run comprehensive system test with third-party transceiver modules
• Finish PCB layout and prepare for fabrication and assembly
• Finish a functional desktop application for the store to use for managing their O.S.T.R.I.C.H. implementation
• Add QR code scanner to app to associate shoppers with transceiver modules

Microcontroller Layout for PCB