# Embedded Bluetooth Communication System

Team: REDSOLOCUP
CIS 641 - 02

# Isaiah Hendrick

- ❏ GVSU
- ❏ Combined ACS Master / CE Bachelor Student

- ❏ Embedded System Design / Maintenance
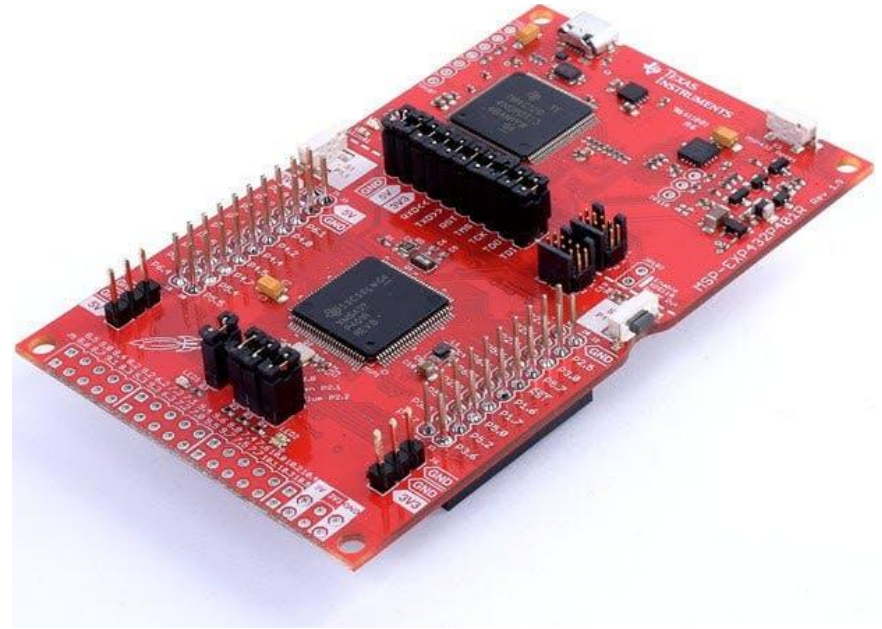
# Project Description

- CORE ~~ User able to enter message using a serial terminal (e.g. TeraTerm) and send to another user using the same system

- User #1 enters message in serial terminal → message sent serially to microcontroller → message converted to bluetooth format → message sent via bluetooth and received by system #2 → message converted to serial format in system #2 → message sent serially to secondary terminal → message viewable on serial terminal to User #2

- Three main parts to system:
  a. Bluetooth transmission
  b. UART (serial) transmission
  c. Message handling

# Hardware/ Software



- MSP432 Microcontroller

- HC05 Bluetooth Module

- Embedded C using Code Composer Studio

- MSP432WARE middleware

# Terminal Styling



- Loosely resemble VT100 style terminal
- Ability to accept ANSI escape codes
  - Allows developer to use color and additional characters to create art and format character position
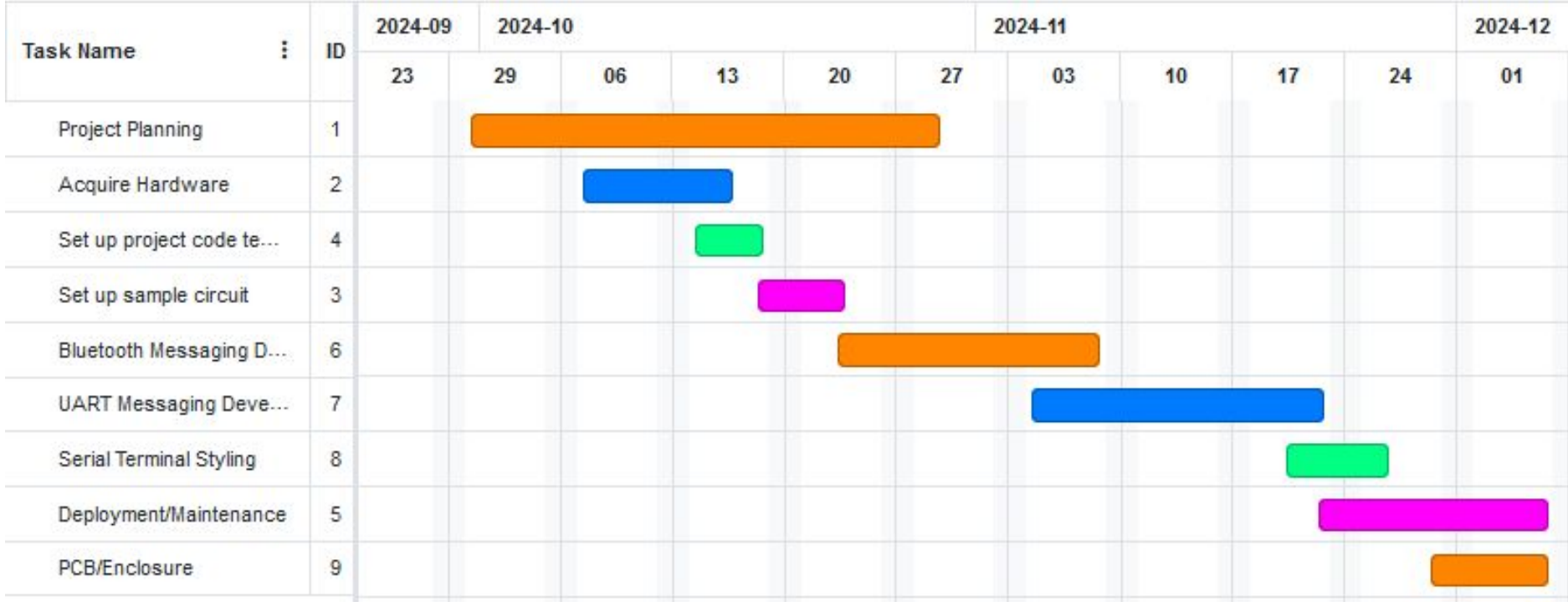  - Important for user application- visually appealing, easier to navigate

# Project Timeline / Responsibilities

**[Everything assigned to Isaiah]**

# Current Progress

- Got off to a slow start, but am currently back on track

- Currently in the bluetooth messaging development stage

- Worried about time needed for ANSI styling, might be a little more involved than I initially thought → may need to adjust timeline accordingly

# Questions?