

CS 466 – final project

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Overview

- Communication:
 - 4-pins on an GPIO read as stepper instructions by slave
 - Three interrupts as direct line between Master and Slave boards.
- Button press to activate each mode

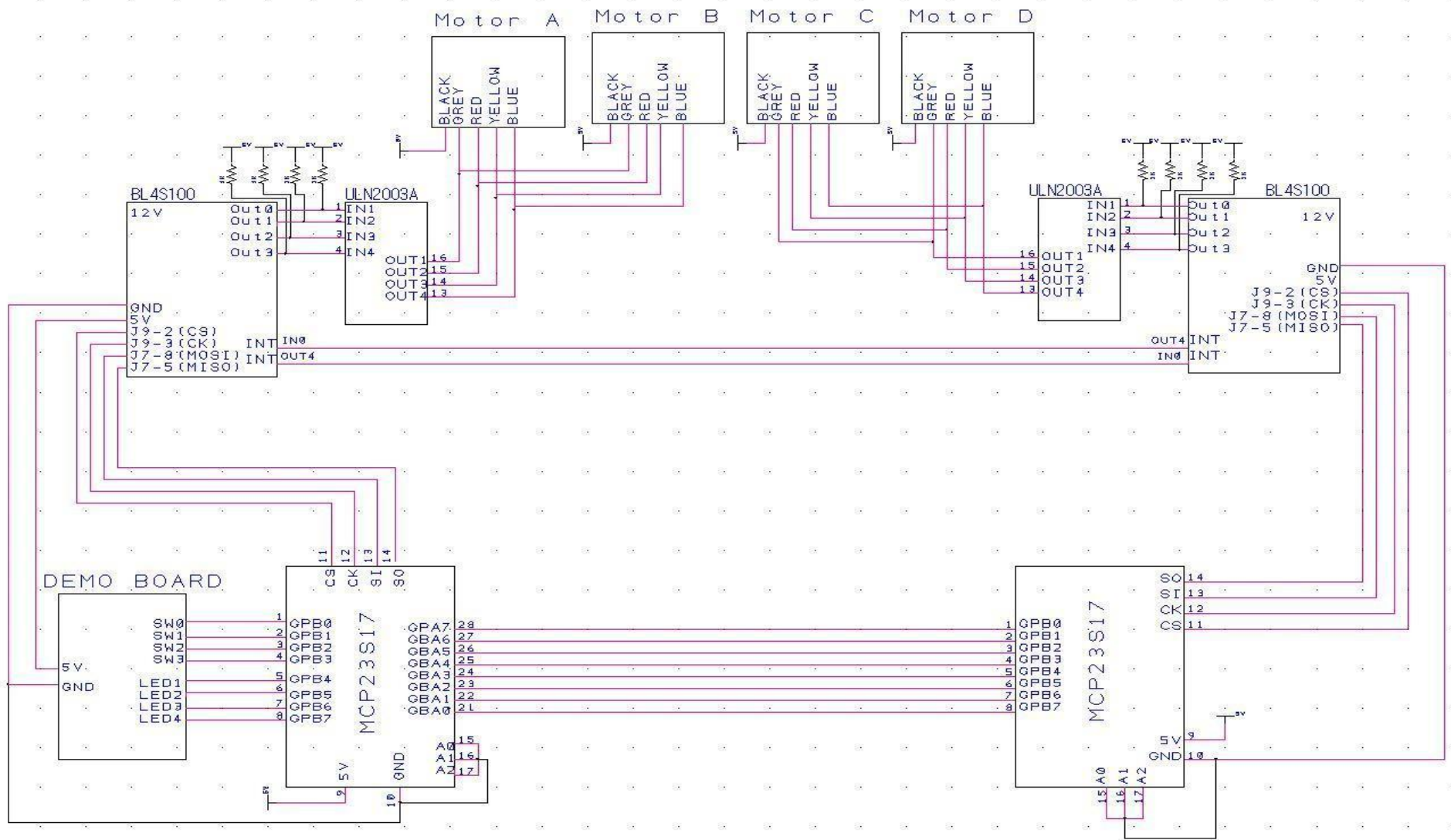
Hardware Design

- Four output pins on the GPIO to send the 4-bit array for each instruction
- Direct board-to-board interrupt used to communicate “read”, “got it” and “go!”

Software Design

- Master:
 - Communicates with GPIO to send stepper instructions to Slave
 - Keeps track of location
- Slave:
 - Reads GPIO pins into an array and executes instructions when “go!” line asserts high
 - Calculates primes
 - stores last 1000

Circuit Diagram



Schedule & Risks

- ~~Milestone 1: turn motors specified by a button~~
- ~~Milestone 2: communicate between boards~~
- ~~Milestone 3: properly incorporate interrupts~~

We are currently on track with the assignment.

Only needing to fine-tune mode interrupts and
clean up code with comments