EET4340

Interface Techniques

Lab 3 – Master/Slave SPI

Use SPIMaster.c or SPISlave.c as your starting point. Each group needs to select either the master or the slave code. Pair up with an opposite group and implement the protocol we designed in class. Wiring requirements are in the .c files. You can designate one group for the slave and one for the master or you can divide up the work or work as a group of four on both parts. Decide as a group how you want to handle it.

The protocol:

To read the count from the slave:

1. SS low
2. Send a command of 0x01
3. Wait 5 us
4. Read high byte from slave
5. Wait 5 us
6. Read low byte from slave
7. SS high

To read the knob value from slave:

1. SS low
2. Send a command of 0x02
3. Wait 1 ms
4. Read high byte from slave
5. Wait 5 us
6. Read low byte from slave
7. SS high