

Pre-Lab

Pseudo Code

Master Code

While true:

```
    user_input = PIND
    if user_input == start_game:
        call play_game
```

play_game:

```
    send start_game_code
    enable receive_interrupt # We will have the interrupt determine
                            # who sent the signal.
    while number_of_moves_received < number_of_players:
        continue
    call calculate_score
    ret
```

calculate_score:

```
    max = 0
    winner = 0
    for score, player in player_scores:
        if score > max:
            winner = player
            max = score

    send winner
    send max
```

```
ret
```

Slave Code

```
While true:
```

```
    receive = (Read USART Receive) # Busy wait
    if receive == game_start:
        call play_game
        call receive_results
```

```
play_game:
```

```
    while True:
        choice = PIND #User input
        move = 0
        if choice == increment_button:
            move++
        if choice == send_move:
            call send_move
        ret
```

```
send_move:
```

```
    send move
    ret
```

```
calculate_score:
```

```
    send results
    ret
```

```
receive_results:
```

```
winner = receive_from_master (checking BotID)
print winner to LCD
```