**AUX PIC Pseudocode**

Configure SPI for slave mode

Configure output pins for stepper and DC motor control

Loop Forever

Call UpdateMotors

Call CheckSPI

Repeat

**checkSPI:**

If new byte has NOT arrived from sync communication

If too much time has passed since last sync communication

Turn off both motors

End

Return

End

Reset SPI timeout count

If first two bits of byte are address for crab pot indicator

Set the desired stepper motor position to whatever the byte indicates

Else if the first two bytes are the address for the propeller speeds

Set the motor duty cycles based off information in the byte

End

**UpdateMotors:**

If timer0 has reached a count of 200

Increment SPI communication timeout count

Reset timer 0

Set each motors drive to on

Call checkStepMotor

End

If Motor0 is powered on

If MO duty cycle time has elapsed

Turn off Motor0

End

End

If Motor1 is powered on

If M1 duty cycle time has elapsed

Turn off Motor1

End

End

**checkStepMotor:**

If enough time has passed

If motor is in desired position

Return

End

If motor is in too low of a position

Step motor forward

Else

Step motor backward

End

End