PINS WE WILL CONNECT TO:

HM 10:

CN6 3.3 V to VCC

CN6 GND to GND

PA\_2 to TX

PA\_3 to RX

Motor drive board:

Current sensing of motors:

Motor A sensing:

Pin 10 Avago A+ of jp1a to PB\_0 of CN8

Pin 9 Avago A– of jp1a to PA\_4 of CN8

Motor B sensing:

Pin 12 Avago B+ of jp1a to PA\_0 of CN8

Pin 11 Avago B- of jp1a to PA\_1 of CN8

One wire:

Jp1a pin 8 to PC\_1 of CN8

Sensors:

Inputs:

Sensor 1 pin in 1 to PA\_5 of CN5 PWM

Sensor 2 pin in 2 to PA\_6 of CN5 PWM

Sensor 3 pin in 3 to PA\_7 of CN5 PWM

Sensor 4 pin in 4 to PB\_6 of CN5 PWM

Sensor 5 pin in 5 to PC\_7 of CN5 PWM

Sensor 6 pin in 6 to PA\_9 of CN5 PWM

Outputs:

Sensor 1 pin out 1 to PA\_8 of CN9

Sensor 2 pin out 2 to PB\_10 of CN9

Sensor 3 pin out 3 to PB\_4 of CN9

Sensor 4 pin out 4 to PB\_5 of CN9

Sensor 5 pin out 5 to PB\_3 of CN9

Sensor 6 pin out 6 to PA\_10 of CN9

CN6 5V to pin 2 of UART

CN6 GND to pin 4 of UART

To power the motor drive board:

The battery positive will connect to J3 pin 3 of motor drive board

The battery negative will connect to J3 pin 1 of motor drive board

To power the micro:

MOTORS Power pins:

JP8 pin 4 = positive of motor 2 I said this was motor A(+)

JP8 pin 3 = negative of motor 2 I said this was motor A(-)

JP8 pin 2 = negative of motor 1 I said this was motor B(-)

JP8 pin 1 = positive of motor 1 I said this was motor B(+)

Speed Sensor:

TIM 2 32 oscilloscope in channel pin = PA\_5 and PB\_3

Configured for this input by using an alternate function register