﻿JordanRoverCode030819--Read Me

It should be easy to tell what the projects do from their names.

To use the code in its current state you will need to have “bridge control panel” and a preferably a terminal emulator set up on your computer.

Commands can be sent to 5lp using I2C or UART through the bridge control panel.

The code is currently setup to accept I2C commands.

To send a command open up bridge control panel and send them in the form of:

w 08 00 0x 0x p

The w is for write, the 08 is the address of the I2C slave set up in the code and 0x represents a 2 digit (1 byte) hex number.

For the manual code the only value that matters is for the first digit of the first 0x.

For example: w 08 00 10 00 p would send command 1.

The commands range from 1-7.

Note: the manual code also works holonomicaly and uses the same math as the holonomic code, with the exception of command 6 ( See the code for what the commands do).

The holonomic servos/motors code is set up to take a velocity in x and y and a rotation (with respect to the rover body) .

The I2C commands are parsed, such that, the two data bytes represented by ux and yz in

w 08 ux yz p are split into three parts.

u=command, which delineates whether the subsequent data is vx, vx, omega, or a send to pwm command. ( 0=vx ; 1= vw; 2 = omega; f = send pwm )

x= the sign of the data ( 1= neg 0= pos ).

yz= the magnitude of the vx, vy , omega in hex

For example: w 08 00 01 23 p would tell the rover to set vx to -23 in hex or -35 in decimal.

note : none of the commands are sent to the motors or servos until the command w 08 00 f0 00 p is sent. This allows a vx, vy and omega to be executed at the same time.