VEX
MOTOR

MOTORS
1 2 3 4 5 6 7 8

INTERRUPTS
1 2 3 4 5 6

V E X

7.2 VOLT
BATTERY OR
POWER SUPPLY

9.6 VOLT
BATTERY OR
POWER SUPPLY

−

+

Rx1

VEX
RADIO-CONTROL
RECEIVER

VEX
RADIO-CONTROL
TRANSMITTER

10 kilohm
POTENTIOMETER

POT WIPER

+ 5 VOLTS

GROUND

ANALOG / DIGITAL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 RX TX

SERIAL

DIRECT
RS-232 LINK
OR
RS-232 - TO - USB LINK

VEX
PROGRAMMING MODULE

PRESS BUTTON
TO PUT CONTROLLER
INTO PROGRAMMING MODE

PC
WITH
IFI_LOADER.EXE
FOR DOWNLOADING CODE TO
CONTROLLER
AND

SERIAL PORT TERMINAL
PROGRAM FOR MONITORING
SERIAL DATA FROM THE
CONTROLLER

TX --->

<--- RX

5 VOLT POWER

GROUND

SERIAL PORT
LEVEL SHIFTER

NEEDED TO PROVIDE
INTERFACE BETWEEN
5 VOLT LOGIC LEVELS
IN CONTROLLER AND
RS-232 LEVELS IN PC

DIRECT
RS-232 LINK
OR
RS-232 - TO - USB LINK

SYSTEM FOR DEMONSTRATION OF FreeRTOS

IN VEX MICRO CONTROLLER

Paul Murphy   23 November 2008