' {$STAMP BS2}

' {$PBASIC 2.5}

' -----[ I/O Definitions ]-------------------------------------------------

HB25 PIN 15 ' I/O Pin For HB-25

out PIN 0

' -----[ Variables ]-------------------------------------------------------

pulseCount VAR Byte ' Used For Measuring Turns

index VAR Word ' Counter For Ramping

' -----[ Variables ]-------------------------------------------------------

Letter VAR Byte

Done VAR Byte

' -----[ Initialization ]--------------------------------------------------

Reset:

DO : LOOP UNTIL HB25 = 1 ' Wait For HB-25 Power Up

LOW HB25 ' Make I/O Pin Output/Low

PAUSE 5 ' Wait For HB-25 To Initialize

PULSOUT HB25, 750 ' Stop Motor 1

PAUSE 1 ' 1 mS Delay

PULSOUT HB25, 750 ' Stop Motor 2

PAUSE 1000

' -----[ Program Code ]----------------------------------------------------

DEBUG "Use UHGBJK key to control ", CR, " U = FWD",CR, " H = FWD fast", CR,

"G = Stop", CR, " B = REV",CR,"J = Left", CR,"k = Right", CR, CR

DO

GOSUB \_SendData

LOOP

'Send one char at a time

\_SendData:

done = 0

DEBUG CR, "letter pressed "

DO WHILE done = 0

DEBUGIN STR letter \1

SEROUT out, 84, [letter, CR]

IF(letter = 117)THEN 'if " U " is pressed'---- FORWARD SLOW!! -----------

FOR index = 150 TO 150 ' FORWARD SLOW!!! optional ramping

PULSOUT HB25, 750 + index ' Motor 1 Forward

PAUSE 1 ' 1 mS Delay For Motor 2 Pulse

PULSOUT HB25, 750 - index ' Motor 2 Reverse

NEXT

PAUSE 20

done = 1

ENDIF

IF(letter = 104)THEN 'if " H " is pressed----- FORWARD FAST! -------------

FOR index = 250 TO 250 ' FWD speed, optional ramping

PULSOUT HB25, 750 + index ' Motor 1 Forward

PAUSE 1 ' 1 mS Delay For Motor 2 Pulse

PULSOUT HB25, 750 - index ' Motor 2 Reverse

NEXT

PAUSE 20

done = 1

ENDIF

IF(letter = 103)THEN 'if " G "is pressed' ------- STOP!! --------

FOR index = 150 TO 150 'Stopped

PULSOUT HB25, 750 ' Motor 1 stopped Fwd

PAUSE 1 ' 1 mS Delay For Motor 2 Pulse

PULSOUT HB25, 750 ' No signs = stop

NEXT

PAUSE 20

done = 1

ENDIF

IF(letter = 98)THEN 'if " B " is pressed'------- REVERSE --------

FOR index = 180 TO 180 ' Reverse speed optional ramping

PULSOUT HB25, 750 - index ' Motor 1 Reverse

PAUSE 1 ' 1 mS Delay For Motor 2 Pulse

PULSOUT HB25, 750 + index ' Motor 2 Forward

NEXT

PAUSE 20

done = 1

ENDIF

IF(letter = 106)THEN 'if " J " is pressed' --------- LEFT --------------

FOR index = 200 TO 200 ' Left turn speed optional ramping

PULSOUT HB25, 750 + index ' Motor 1 Forward

PAUSE 1 ' 1 mS Delay For Motor 2 Pulse

PULSOUT HB25, 750 + index ' Motor 2 Forward

NEXT

PAUSE 20

done = 1

ENDIF

IF(letter = 107)THEN 'if " K " is pressed'-------- RIGHT ---------

FOR index = 200 TO 200 ' Right turn speed optional ramping

PULSOUT HB25, 750 - index ' Motor 1 Reverse

PAUSE 1 ' 1 mS Delay For Motor 2 Pulse

PULSOUT HB25, 750 - index ' Motor 2 Reverse

NEXT

PAUSE 20

done = 1

ENDIF

LOOP

RETURN