C:\Documents and Settings\Snider\Desktop\sumovore\SpeedControl-Sumovore.bas

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'On the sumovore, motor speed can be controlled using the
'PICAXE PWM IC. PWM stands for Pulse Width Modulation.
'To set the speed of the left motor, first select it by
'turning on Outputs 4 & 5, then send a pulse of between
'50ms (slow) and 255ms (fast) on pin 6 to set the speed.
'To set the speed of the right motor, first select it by
'turning on Outputs 6 & 7, then send a pulse of between
'50ms (slow) and 255ms (fast) on pin 4 to set the speed.
'The left motor turns forward when pin 7 is high & pin 6 is low.
'The right motor turns forward when pin 5 is high & pin 4 is low.
'To reverse the motor, invert the voltage on each pin.
            pause 100   'startup delay
main:
            pause 100   'wait 0.1 sec
setspeed:
            let pins = %00000000  'turn off port B
            pause 10                'wait 0.01 sec
            let pins = %00110000    'select left motor
                                    '(outputs B.4, B.5)
            pulsout 6, $80          'send a 128 ms (80 Hex)
                                    'pulse to the PWM IC MOT-2
            pause 10                'wait 0.01 sec
            let pins = %11000000    'select right motor
                                    '(outputs B.6, B.7)
            pulsout 4, 128          'send a 128 ms  pulse
                                    'to the PWM IC MOT-4
            pause 10                'wait 0.01 sec
            let pins = %00000000    'turn off port B
            goto fwd                'jump to label fwd

fwd:
            let pins = 163          '1010 0000 turn on pins 0, 1, 5, 7
                                    'so both motors turn foward
            pause 2500              'drive forward for 2.5 sec
            goto backwd             'jump to label backwd

backwd:
            low 5                   'turn off pin 5
            high 4                  'turn on pin 4 so right motor reverses
            low 7                   'turn off pin 7
            high 6                  'turn on pin 6 so left motor reverses
            low 1                   'turn off LED-1
            high 2                  'turn on LED-2
            pause 2500              'drive backwards for 2.5 sec

            let pins = 4

            end
```