

```
'copyright Stan Kostecki 28 May 2006 version 02
'*****
'**** Servo code picaxe08 *****
'*****
;testing notes... tested with code in PA28x and swings full right when hand
sensored on right.
```

```
'pin configuration is as follows
```

```
'
'0-VCC >1|_| 8> 0 -GND
'0-serin >2 7> SERVO CONTROL
' SERVO LOCATION 03 >3 6> EYE LIGHT (OPTIONAL)
' SERVO LOCATION 02 >4 5> SERVO LOCATION 01
```

```
' Notes interacts with Picaxe 28 pin outs below
```

```
'
'reset >1|_| 28> servo location 03
' a0 >2 27> servo location 02
' a1 >3 26> servo location 01
' a2 >4 25> interface motor PCB
' a3 >5 24> interface motor PCB
'0-serin 6 23> u/sonic trigger out 3
'0-serout 7 22> u/sonic trigger out 2
'0-gnd 8 21> u/sonic trigger out 1
'0-xtal 9 20 0-vcc
'0-xtal 10 19 0-gnd
' pin0 -11 18- pin7 Echo input 3
' pin1 -12 17- pin6 Echo input 2
' pin2 -13 16- pin5 Echo input 1
' pin3 -14 15- pin4
```

```
start: ;setup
symbol CurrentValue = b5
symbol NewValue = b6
pulsout 0,110 ;move head to center
pause 40
low 1 ; turn off motor
let CurrentValue=120 ; set CurrentValue to center
pause 40
```

```
loop: ;main loop
```

```
pause 2000 ;wait
```

```
if pins = %00011100 then center
if pins = %00000100 then left
```

```
if pins = %000001100 then left60
if pins = %00010000 then right
```

```
if pins = %00011000 then right60
```

```
center: ;move to center from either left or right
```

```
let NewValue=110
```

```
if CurrentValue <= NewValue then cw
```

```
if CurrentValue > NewValue then ccw
```

```
left: ;move to left from right
```

```
let NewValue= 200
```

```
goto cw
```

```
left60: ;move to left60 from either left or right
```

```
let NewValue= 160
```

```
if CurrentValue <= NewValue then cw
```

```
if CurrentValue > NewValue then ccw
```

```
right: ;move to right from left
```

```
let NewValue= 25
```

```
goto ccw
```

```
right60: ;move to right60 from either left or right
```

```
let NewValue= 75
```

```
if CurrentValue <= NewValue then cw
```

```
if CurrentValue > NewValue then ccw
```

```
ccw:
```

```
for b7 = CurrentValue to NewValue step -10 ; turn counter clockwise
```

```
pulsout 0, b7 'or servo 1, b7
```

```
pause 40
```

```
next b7
```

```
let CurrentValue= NewValue
```

```
low 0
```

```
goto loop
```

```
cw:
```

```
for b7 = CurrentValue to NewValue step 10 ; turn clockwise
```

```
pulsout 0, b7 'or servo 1, b7
```

```
pause 40
```

```
next b7
```

```
let CurrentValue= NewValue
```

```
low 0
```

```
goto loop
```