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*****
'* Name   : lavadora.BAS                               *
'* Author : [set under view...options]                  *
'* Notice : Copyright (c) 2006 [set under view...options] *
'*       : All Rights Reserved                          *
'* Date   : 20/12/2006                                  *
'* Version : 1.0                                         *
'* Notes  :                                              *
'*       :                                              *
*****

define osc 20
Define LCD_DREG    PORTD
Define LCD_DBIT    4
Define LCD_RSREG   PORTB
Define LCD_RSBIT   0
Define LCD_EREG    PORTB
Define LCD_EBIT    1
Define ADC_BITS    10
Define ADC_CLOCK   3
Define ADC_SAMPLEUS 50
ADCON1=142

nivel var porte.0
bomba var porte.2
run var porta.1
centri var porte.1
b1 var porta.2
b2 var porta.3
sole var porta.5
lava var portd.0
espri var portd.1
enju var portd.2
para var portd.3

input portd.0
input portd.1
input portd.2
input portd.3

output bomba
output sole
output run
output b1
output b2

input porte.0
input porte.1

w var byte
x var byte

```

```
y var byte
i var byte
j var byte
k var byte
l var byte
t var word
adc var word
s var byte
m var word
seg var word
e var word
ex var word
la var word
clear
pause 1000
LCDOUT $FE,1,"iniciando..."
LCDOUT $FE,1,"esperando mando"
low b1
low b2
low run
goto boton
```

```
boton:
adcin 0,adc
seg = adc
button lava,0,10,10,j,1,lavarmain
button espri,0,10,10,j,1,vaciar
button enju,0,10,10,j,1,enjuagar
button para,0,10,10,j,1,apagar
adc =adc/120
m = abs adc
la = seg/2
e = seg/4
ex = (la)*(3/2)
LCDOUT $FE,$C0,1,"tiempo: ",dec m,"min"
goto boton
```

```
enjuagar:
gosub llenar
LCDOUT $FE,1,"enjuagando..."
for k = e to 0 step -1
button para,0,10,10,j,1,apagar
t = k
LCDOUT $FE,$C0,1,"tiempo: ",dec t,"seg"
pause 1000
next k
gosub vaciar
return
```

```
lavarmain:
gosub llenar
LCDOUT $FE,1,"lavando..."
for l = la to 0 step -1
t = l
LCDOUT $FE,$C0,1,"tiempo: ",dec t,"seg"
button para,0,10,10,j,1,apagar
pause 1000
next l
gosub vaciar
gosub enjuagar
LCDOUT $FE,1,"ropa lavada..."
goto boton
```

```
llenar:
low run
low b1
low b2
LCDOUT $FE,1,"llenando..."
while nivel = 0
high sole
button para,0,10,10,j,1,apagar
wend
low sole
gosub lavar
return
```

```
lavar:
LCDOUT $FE,1,"arrancando..."
high run
return
```

```
vaciar:
LCDOUT $FE,1,"vaciando..."
low run
while nivel = 1
high bomba
button para,0,10,10,j,1,apagar
wend
for y = 60 to 0 step -1
t = y
LCDOUT $FE,$C0,1,"tiempo: ",dec t,"seg"
button para,0,10,10,j,1,apagar
pause 1000
next y
gosub esprimir
low run
return
```

```
esprimir:
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```
high bomba
pause 5000
LCDOUT $FE,1,"esprimiendo..."
high b2
pause 100
high run
for i = ex to 0 step -1
t = i
if i > (ex/2) then low bomba
LCDOUT $FE,$C0,1,"tiempo: ",dec t,"seg"
button para,0,10,10,j,1,apagar
pause 1000
next i
low run
low b2
return
```

```
apagar:
LCDOUT $FE,1,"apagando..."
low run
low b1
low b2
low sole
low bomba
x = 0
w = 0
clear
pause 2000
goto boton
```