Program

```
' {$STAMP BS2}
' {$PBASIC 2.5}

' Can 1-------------------------------------------------------------------------------

Trigger   PIN 0
Echo      PIN 1

Trig10 CON 5
ToCm   CON 30

samples   VAR Nib
pWidth    VAR Word
rawDist   VAR Word

rawForce  VAR Word
sensorPin CON 2

' Can 2-------------------------------------------------------------------------------

Trigger2   PIN 3
Echo2      PIN 4

Trig102 CON 5
ToCm2   CON 30

samples2   VAR Nib
pWidth2    VAR Word
rawDist2   VAR Word

rawForce2  VAR Word
sensorPin2 CON 5

' Can 3-------------------------------------------------------------------------------

Trigger3   PIN 6
Echo3      PIN 7

Trig103 CON 5
ToCm3   CON 30

samples3   VAR Nib
pWidth3    VAR Word
rawDist3   VAR Word

rawForce3  VAR Word
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sensorPin3 CON 8

'================================================================================
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' Can 1-------------------------------------------------------------------------------

Can1:

Setup:
  LOW Trigger
  DEBUG CLS,
        "Can 1", CR,
        "-----", CR,
        "Raw 1.....      ", CR


Main:
  DO
   GOSUB Get_Sonar
   DEBUG CRSRXY, 15, 2, DEC rawDist, CLREOL

   GOSUB Measure
   GOSUB LED
   GOSUB SOUND
   GOSUB Can2
   PAUSE 100
 LOOP

END



Get_Sonar:
  rawDist = 0
  FOR samples = 1 TO 5
    PULSOUT trigger, Trig10
    RCTIME Echo, 1, pWidth
    rawDist = rawDist + (pWidth / 5)
    PAUSE 10
  NEXT
  RETURN


Measure:
  HIGH sensorPin
  PAUSE 2
  RCTIME sensorPin,1,rawForce
  DEBUG HOME, "Flexiforce raw output 1= ", DEC rawForce, CR
  IF rawForce < 32500 AND rawForce > 0 THEN HIGH 14
  IF rawForce > 32500 OR rawForce = 0 THEN LOW 14

RETURN

LED:
  IF rawDist < 250 THEN HIGH 13
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  IF rawDist > 250 THEN LOW 13


RETURN

SOUND:

  IF rawDist < 250 THEN FREQOUT 15, 500, 3300
  IF rawForce < 32500 AND rawForce > 0 THEN  FREQOUT 15, 500, 3300

RETURN


' Can 2-------------------------------------------------------------------------------

Can2:

Setup2:
  LOW Trigger2
  DEBUG CLS,
        "Can 2", CR,
        "-----", CR,
        "Raw 2.....      ", CR


Main2:
  DO
   GOSUB Get_Sonar2
   DEBUG CRSRXY, 15, 2, DEC rawDist2, CLREOL

   GOSUB Measure2
   GOSUB LED2
   GOSUB SOUND2
   PAUSE 100
 LOOP

END



Get_Sonar2:
  rawDist2 = 0
  FOR samples2 = 1 TO 5
    PULSOUT trigger2, Trig102
    RCTIME Echo2, 1, pWidth2
    rawDist2 = rawDist2 + (pWidth2 / 5)
    PAUSE 10
  NEXT
  RETURN


Measure2:
  HIGH sensorPin2
  PAUSE 2
  RCTIME sensorPin2,1,rawForce2
  DEBUG HOME, "Flexiforce raw output 2 = ", DEC rawForce2, CR
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```
  IF rawForce2 < 5000 AND rawForce2 > 0 THEN HIGH 12
  IF rawForce2 > 5000 OR rawForce2 = 0 THEN LOW 12

RETURN

LED2:
  IF rawDist2 < 250 THEN HIGH 11
  IF rawDist2 > 250 THEN LOW 11


RETURN

SOUND2:

  IF rawDist2 < 250 THEN FREQOUT 15, 500, 3300
  IF rawForce2 < 5000 AND rawForce2 > 0 THEN  FREQOUT 15, 500, 3300

GOTO Can3


' Can 3-----------------------------------------------------------------------------------


Can3:

Setup3:
  LOW Trigger3
  DEBUG CLS,
        "Can 3", CR,
        "-----", CR,
        "Raw 3.....      ", CR


Main3:
  DO
   GOSUB Get_Sonar3
   DEBUG CRSRXY, 15, 2, DEC rawDist, CLREOL

   GOSUB Measure3
   GOSUB LED3
   GOSUB SOUND3
   PAUSE 100
 LOOP

END



Get_Sonar3:
  rawDist3 = 0
  FOR samples3 = 1 TO 5
    PULSOUT trigger3, Trig103
    RCTIME Echo3, 1, pWidth3
    rawDist3 = rawDist3 + (pWidth3 / 5)
    PAUSE 10
  NEXT
```

```
  RETURN


Measure3:
  HIGH sensorPin3
  PAUSE 2
  RCTIME sensorPin3,1,rawForce3
  DEBUG HOME, "Flexiforce raw output 3= ", DEC rawForce3, CR
  IF rawForce3 < 32500 AND rawForce3 > 0 THEN HIGH 10
  IF rawForce3 > 32500 OR rawForce3 = 0 THEN LOW 10

RETURN

LED3:
  IF rawDist3 < 250 THEN HIGH 9
  IF rawDist3 > 250 THEN LOW 9


RETURN

SOUND3:

  IF rawDist3 < 250 THEN FREQOUT 15, 500, 3300
  IF rawForce3 < 32500 AND rawForce3 > 0 THEN  FREQOUT 15, 500, 3300

GOTO Can1
```