'{$STAMP BS2}

'{$PBASIC 2.5}

RcChannel6 PIN 0

BeaconLed PIN 1

LinearServo PIN 3

MastHeadlightLed PIN 7

Water1 PIN 8

Water2 PIN 9

PeriscopeDOWN PIN 14

Ptime VAR Word

PeriscopeMove VAR Byte

TimeCount VAR Word

Initialize:

INPUT RcChannel6

OUTPUT BeaconLed

OUTPUT LinearServo

OUTPUT MastHeadlightLed

OUTPUT Water1

INPUT Water2

INPUT PeriscopeDOWN

TimeCount = 0

LinearServo = 0

Water1 = 1

Water2 = 0

Main:

IF PeriscopeDOWN = 0 THEN

GOSUB MainA

ELSE

GOSUB MainB

ENDIF

GOTO Main

MainA:

BeaconLed = 0

MastHeadlightLed = 0

GOSUB Routine

GOSUB LeakoarSignalLoss

RETURN

MainB:

MastHeadlightLed = 1

'\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BeaconLed = 1

TimeCount = 0

FOR TimeCount = 0 TO 9 STEP 1

GOSUB Routine

GOSUB LeakoarSignalLoss

PAUSE 1

NEXT

BeaconLed = 0

TimeCount = 0

FOR TimeCount = 0 TO 9 STEP 1

GOSUB Routine

GOSUB LeakoarSignalLoss

PAUSE 1

NEXT

'\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BeaconLed = 1

TimeCount = 0

FOR TimeCount = 0 TO 9 STEP 1

GOSUB Routine

GOSUB LeakoarSignalLoss

PAUSE 1

NEXT

BeaconLed = 0

TimeCount = 0

FOR TimeCount = 0 TO 9 STEP 1

GOSUB Routine

GOSUB LeakoarSignalLoss

PAUSE 1

NEXT

'\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BeaconLed = 1

TimeCount = 0

FOR TimeCount = 0 TO 9 STEP 1

GOSUB Routine

GOSUB LeakoarSignalLoss

PAUSE 1

NEXT

BeaconLed = 0

TimeCount = 0

FOR TimeCount = 0 TO 9 STEP 1

GOSUB Routine

GOSUB LeakoarSignalLoss

PAUSE 1

NEXT

'\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

TimeCount = 0

BeaconLed=0

FOR TimeCount = 0 TO 20 STEP 1

GOSUB Routine

GOSUB LeakoarSignalLoss

PAUSE 1

NEXT

RETURN

'\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Routine:

PULSIN RcChannel6, 1, Ptime

IF (Ptime > 0) THEN

DEBUG HOME,

DEC Ptime, " units ", CLREOL

DEBUG CR,

DEC Ptime, " us "

ELSE

DEBUG CLS, "Out of Range"

ENDIF

IF (Ptime < 490) OR (Ptime > 1000) THEN

PeriscopeMove = 2

ELSE

PeriscopeMove = 0

ENDIF

SELECT PeriscopeMove

CASE 0

LinearServo = 1

CASE 2

LinearServo = 0

ENDSELECT

RETURN

'\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

LeakoarSignalLoss:

IF Water2 = 1 THEN

DO

MastHeadlightled = 1

Beaconled = 1

PAUSE 250

MastHeadlightled = 0

Beaconled = 0

PAUSE 250

LOOP

ELSE

ENDIF

IF Ptime<250 THEN

Beaconled = 0

DO

MastHeadlightled = 1

PAUSE 250

MastHeadlightled = 0

PAUSE 250

LOOP

ELSE

ENDIF

RETURN