'{$STAMP BS2}

'{$PBASIC 2.5}

RcChannel6 PIN 0

BeaconLed PIN 1

BallastSSR PIN 2

MotorSSR1 PIN 3

MotorSSR2 PIN 4

MotorSSR3 PIN 5

MotorSSR4 PIN 6

MastHeadlightLed PIN 7

Water1 PIN 8

Water2 PIN 9

PeriscopeDOWN PIN 14

PeriscopeUP PIN 15

Ptime VAR Word

PeriscopeMove VAR Byte

TimeCount VAR Word

Initialize:

 OUTPUT BeaconLed

 OUTPUT BallastSSR

 OUTPUT MotorSSR1

 OUTPUT MotorSSR2

 OUTPUT MotorSSR3

 OUTPUT MotorSSR4

 OUTPUT MastHeadlightLed

 OUTPUT Water1

 INPUT Water2

 INPUT RcChannel6

 INPUT PeriscopeUP

 INPUT PeriscopeDOWN

 PeriscopeMove = 0

 TimeCount = 0

 BallastSSR = 0

 Water1 = 1

Main:

 IF PeriscopeDOWN = 0 THEN

 GOSUB MainA

 ELSE

 GOSUB MainB

 ENDIF

 GOTO Main

MainA:

 BeaconLed = 0

 MastHeadlightLed = 0

 GOSUB Routine

 GOSUB LeakBlow

 GOSUB MotorStop

 RETURN

MainB:

 BeaconLed=1

 MastHeadlightLed = 1

 GOSUB Routine

 GOSUB LeakBlow

 GOSUB MotorStop

 PAUSE 500

 BeaconLed=0

 PAUSE 500

 BeaconLed=1

 GOSUB Routine

 GOSUB LeakBlow

 GOSUB MotorStop

 PAUSE 500

 BeaconLed=0

 PAUSE 500

 BeaconLed=1

GOSUB Routine

GOSUB LeakBlow

GOSUB MotorStop

PAUSE 500

 BeaconLed=0

 TimeCount = 0

FOR TimeCount = 0 TO 25 STEP 1

 GOSUB Routine

 GOSUB LeakBlow

GOSUB MotorStop

 PAUSE 2

 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 < 550) THEN

 PeriscopeMove = 2

 ELSEIF (Ptime < 850) AND (Ptime > 550) THEN

 PeriscopeMove = 0

 ELSEIF (Ptime > 850) THEN

 PeriscopeMove = 1

 ENDIF

 SELECT PeriscopeMove

 CASE 0

 PAUSE 1

 MotorSSR1 = 0

 MotorSSR3 = 0

 PAUSE 1

 MotorSSR2 = 0

 MotorSSR4 = 0

 CASE 1

 IF PeriscopeDOWN = 1 THEN

 MotorSSR1 = 0

 MotorSSR3 = 0

 PAUSE 1

 MotorSSR2 = 0

 MotorSSR4 = 0

 PAUSE 1

 MotorSSR4 = 1

 PAUSE 1

 MotorSSR3 = 1

 ELSE

 PAUSE 1

 MotorSSR1 = 0

 MotorSSR3 = 0

 PAUSE 1

 MotorSSR2 = 0

 MotorSSR4 = 0

 ENDIF

 CASE 2

 IF PeriscopeUP = 1 THEN

 MotorSSR1 = 0

 MotorSSR3 = 0

 PAUSE 1

 MotorSSR2 = 0

 MotorSSR4 = 0

 PAUSE 1

 MotorSSR2 = 1

 PAUSE 1

 MotorSSR1 = 1

 ELSE

 PAUSE 1

 MotorSSR1 = 0

 MotorSSR3 = 0

 PAUSE 1

 MotorSSR2 = 0

 MotorSSR4 = 0

 ENDIF

 ENDSELECT

RETURN

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

LeakBlow:

Pause 10

IF Water2 = 1 THEN

 TOGGLE BallastSSR

 PAUSE 1

 MotorSSR1 = 0

 MotorSSR3 = 0

 PAUSE 1

 MotorSSR2 = 0

 MotorSSR4 = 0

 DO

 MastHeadlightled = 1

 Beaconled = 1

 PAUSE 250

 MastHeadlightled = 0

 Beaconled = 0

 PAUSE 250

 LOOP

 ELSE

ENDIF

RETURN

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

MotorStop:

PULSIN RcChannel6, 1, Ptime

 IF (Ptime <= 0) THEN

 DO

 MotorSSR1 = 0

 MotorSSR3 = 0

 PAUSE 1

 MotorSSR2 = 0

 MotorSSR4 = 0

 MastHeadlightled = 1

 PAUSE 250

 MastHeadlightled = 0

 PAUSE 250

 LOOP

 ELSE

ENDIF

RETURN