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

LED0                    PIN   0                 'Defines PIN 0
LED1                    PIN   1                 'Defines PIN 1
LED2                    PIN   2                 'Defines PIN 2
LED3                    PIN   3                 'Defines PIN 3
LED4                    PIN   4                 'Defines PIN 4
LED5                    PIN   5                 'Defines PIN 5
LED6                    PIN   6                 'Defines PIN 6
LED7                    PIN   7                 'Defines PIN 7
LED8                    PIN   8                 'Defines PIN 8
LED9                    PIN   9                 'Defines PIN 9
LED10                   PIN   10                'Defines PIN 10
LED11                   PIN   11                'Defines PIN 11

'--------( Variables )-------------------------------------------------------------------------------------------------------


speed       VAR    Word                         'Defines Speed as a Variable
r           VAR    Word                         'Defines r as a Variable
o           VAR    Byte                         'Defines o as a Variable
f           VAR    Word                         'Defines f as a Variable
g           VAR    Byte                         'Defines g as a Variable
reps1       VAR    Word                         'Defines reps1 as a Variable
reps2       VAR    Word                         'Defines reps2 as a Variable
leds        VAR    OUTD                         'Defines leds as a Variable
ledsdirs    VAR    DIRD                         'Defines ledsdirs as a Variable
cntr        VAR    Byte                         'Defines cntr as a Variable

'--------( Constants)-------------------------------------------------------------------------------------------------------

minCount                CON 0                   'Defines minCount as a constant
maxCount                CON 15                  'Defines masCount as a constant
DelayTm                 CON 10                  'Defines DelayTm as a constant

' -----[ Program Code ]-------------------------------------------------------------------------------------------------------

Reset:                                          'Reset
ledsdirs = %1111                                'Reset leds

Sequence1:                                      'States Sequence 1
   DO                                           'Starts a loop
      FOR reps1 = 50 TO 1                       'Counter
      RANDOM r                                  'Randomizing r
      o = r // 12                               'Creating o
      SELECT o                                  'Starts a case select
      CASE = 0                                  'Selects case if o = 0
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        LOW Led0                    'Turns on Led0
        CASE = 1                    'Selects case if o = 1
        LOW Led1                    'Turns on Led1
        CASE = 2                    'Selects case if o = 2
        LOW Led2                    'Turns on Led2
        CASE = 3                    'Selects case if o = 3
        LOW Led3                    'Turns on Led3
        CASE = 4                    'Selects case if o = 4
        LOW Led4                    'Turns on Led4
        CASE = 5                    'Selects case if o = 5
        LOW Led5                    'Turns on Led5
        CASE = 6                    'Selects case if o = 6
        LOW Led6                    'Turns on Led6
        CASE = 7                    'Selects case if o = 7
        LOW Led7                    'Turns on Led7
        CASE = 8                    'Selects case if o = 8
        LOW Led8                    'Turns on Led8
        CASE = 9                    'Selects case if o = 9
        LOW Led9                    'Turns on Led9
        CASE = 10                   'Selects case if o = 10
        LOW Led10                   'Turns on Led10
        CASE = 11                   'Selects case if o = 11
        LOW Led11                   'Turns on Led11
ENDSELECT                           'Ends the Select Statement
  FOR cntr = minCount TO maxCount   'Counts from minCount to maxCount
         leds = cntr                'Outputs in binary
        PAUSE DelayTm               'Pauses on DelayTm
  NEXT                              'Ends the For Next Statement
  FOR cntr = maxCount TO minCount   'Counts from maxCount to minCount
        leds = cntr                 'Outputs in binary
        PAUSE DelayTm               'Pauses on DelayTm
  NEXT                              'Ends the For Next Statement
        DIRL = %000000000000        'Turns off pins 0-7
        HIGH Led8                   'Turns off pin8
        HIGH Led9                   'Turns off pin9
        HIGH Led10                  'Turns off pin10
        HIGH Led11                  'Turns off pin11
NEXT                                'Ends the For Next Statement

FOR reps2 = 300 TO 1                'Counts
        RANDOM r                    'Randomizes r
        RANDOM f                    'Randomizes f
        o = r // 12                 'defines o
        SELECT o                    'Starts a case select Statement
        CASE = 0                    'Selects case if o = 0
        LOW Led0                    'Turns on Led0
        CASE = 1                    'Selects case if o = 1
        LOW Led1                    'Turns on Led1
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```
        CASE = 2                    'Selects case if o = 2
        LOW Led2                    'Turns on Led2
        CASE = 3                    'Selects case if o = 3
        LOW Led3                    'Turns on Led3
        CASE = 4                    'Selects case if o = 4
        LOW Led4                    'Turns on Led4
        CASE = 5                    'Selects case if o = 5
        LOW Led5                    'Turns on Led5
        CASE = 6                    'Selects case if o = 6
        LOW Led6                    'Turns on Led6
        CASE = 7                    'Selects case if o = 7
        LOW Led7                    'Turns on Led7
        CASE = 8                    'Selects case if o = 8
        LOW Led8                    'Turns on Led8
        CASE = 9                    'Selects case if o = 9
        LOW Led9                    'Turns on Led9
        CASE = 10                   'Selects case if o = 10
        LOW Led10                   'Turns on Led10
        CASE = 11                   'Selects case if o = 11
        LOW Led11                   'Turns on Led11
ENDSELECT                           'Ends the Case Select statement
        g = f // 16                 'Defines g
        cntr = g                    'defines cntr
        leds = cntr                 'defines leds
        PAUSE DelayTm               'Pauses time delay
        DIRL = %000000000000        'Turns off pins 0-7
        HIGH Led8                   'Turns off led8
        HIGH Led9                   'Turns off led9
        HIGH Led10                  'Turns off led10
        HIGH Led11                  'Turns off led 11
NEXT                                'Ends the For Next Statement
LOOP                                'Goes back to DO
```