

5x5 Computer Codes for Patterns

LED Layers (bottom to top):

Layer 1: A1

Layer 2: A2

Layer 3: A3

Layer 4: A4

Layer 5: A5

LED Columns (from behind circuit board: close board to far board, left to right):

B4	D7	C6	D1	C0
B5	B0	C7	D2	C1
B6	B1	D4	D3	C2
B7	B2	D5	C4	C3
A0	B3	D6	C5	D0

Simple Cube Checking Program:

```
TRISA=%00000000
```

```
TRISB=%00000000TRISC=%00000000
```

```
TRISD=%00000000
```

Main:

```
Porta=%00111111
```

```
Portb=%11111111
```

```
Portc=%11111111
```

```
Portd=%11111111
```

```
Pause 1000
```

```
Porta=%00000000
```

```
Portb=%00000000
```

```
Portc=%00000000
```

```
Portd=%00000000
```

```
Pause 1000
```

```
Goto Main
```

Boom Box Program:

```
TRISA=%00000000
TRISB=%00000000
TRISC=%00000000
TRISD=%00000000
```

```
A var word
B var word
C var word
D var word
E var word
F var word
```

Main:

```
Porta=%00001000
Portb=%00000000
Portc=%00000000
Portd=%00010000
Pause 1000
For A = 1 to 500
Porta=%00001000
Portb=%00000010
Portc=%10000000
Portd=%00101000
Pause 1
Porta=%00010100
Portb=%00000000
Portc=%00000000
Portd=%00010000
Pause 1
Next A
For B = 1 to 250
Porta=%00001000
Portb=%01000101
Portc=%01010100
Portd=%01000100
Pause 1
Porta=%00000100
Portb=%00000010
Portc=%10000000
```

```
Portd=%00101000
Pause 1
Porta=%00010000
Portb=%00000010
Portc=%10000000
Portd=%00101000
Pause 1
Porta=%00100010
Portb=%00000000
Portc=%00000000
Portd=%00010000
Pause 1
Next B
For C = 1 to 250
Porta=%00010100
Portb=%01000101
Portc=%01010100
Portd=%01000100
Pause 1
Porta=%00100000
Portb=%00000010
Portc=%10000000
Portd=%00101000
Pause 1
Porta=%00000010
Portb=%00000010
Portc=%10000000
Portd=%00101000
Pause 1
Porta=%00001000
Portb=%10101000
Portc=%00101010
Portd=%10000010
Pause 1
Next C
For D = 1 to 200
Porta=%00000010
Portb=%01000000
Portc=%01000100
```

```
Portd=%01000000
Pause 1
Porta=%00000100
Portb=%10101000
Portc=%00101010
Portd=%10000010
Pause 1
Porta=%00001001
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pause 1
Porta=%00010000
Portb=%10101000
Portc=%00101010
Portd=%10000010
Pause 1
Porta=%00100000
Portb=%01000000
Portc=%01000100
Portd=%01000000
Pause 1
Next D
For E = 1 to 250
Porta=%00000010
Portb=%10101000
Portc=%00101010
Portd=%10000010
Pause 1
Porta=%00010001
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pause 1
Porta=%00000101
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pause 1
```

```
Porta=%00100000
Portb=%10101000
Portc=%00101010
Portd=%10000010
Pause 1
Next E
For F = 1 to 500
Porta=%00000011
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pause 1
Porta=%00100001
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pause 1
Next F
GOTO Main
```

```
Box Program:
TRISA=%00000000
TRISB=%00000000
TRISC=%00000000
TRISD=%00000000
```

```
BoxA var word
BoxB var word
```

```
Main:
Porta=%00001000
Portb=%00000000
Portc=%00000000
Portd=%00010000
Pause 1000
For BoxA = 1 to 250
Porta=%00001000
Portb=%00000000
```

```
Portc=%00010000
Portd=%00000100
Pause 1
Porta=%00001000
Portb=%00000101
Portc=%00000000
Portd=%00000000
Pause 1
Porta=%00010000
Portb=%00000111
Portc=%10010000
Portd=%00101100
Pause 1
Porta=%00000100
Portb=%00000111
Portc=%10010000
Portd=%00101100
Pause 1
Next BoxA
For BoxB = 1 to 200
Porta=%00000011
Portb=%11111000
Portc=%01101111
Portd=%11000011
Pause 1
Porta=%00000101
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pause 1
Porta=%00001001
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pause 1
Porta=%00010001
Portb=%00010000
Portc=%00000001
Portd=%00000001
```

```
Pause 1
Porta=%00100001
Portb=%11111000
Portc=%01101111
Portd=%11000011
Pause 1
Next BoxB
GOTO Main
```

Cube Fading Program (eight seconds):

```
TRISA=%00000000
TRISB=%00000000
TRISC=%00000000
TRISD=%00000000
```

```
Fade var word
x var word
Y var word
```

Main:

```
For x = 1 to 2832
y = x
Porta=%00111111
Portb=%11111111
Portc=%11111111
Portd=%11111111
Pauseus y
Porta=%00000000
Portb=%00000000
Portc=%00000000
Portd=%00000000
Pauseus 2832 - y
Next x
x = 0
Goto main
```

The Final Program:

```
TRISA=%00000000
TRISB=%00000000
TRISC=%00000000
TRISD=%00000000
```

```
a var word
b var word
c var word
d var word
d2 var word
e var word
f var word
f2 var word
g var wor
h var word
h2 var word
i var word
j var word
j2 var word
k var word
l var word
l2 var word
m var word
n var word
n2 var word
p var word
o var word
```

Main:

```
For a = 1 - 354
b = a
Porta=%00001000
Portb=%00000000
Portc=%00000000
Portd=%00010000
Pauseus b
Porta=%00000000
Portb=%00000000
Portc=%00000000
```



```

Portd=%00000000
Pauseus 2832 - b
Next a
a = 0
For c = 355 to 708
d = c
d2 = d / 2
Porta=%00001000
Portb=%00000010
Portc=%10000000
Portd=%00101000
Pauseus d2
Porta=%00010100
Portb=%00000000
Portc=%00000000
Portd=%00010000
Pauseus d2
Porta=%00000000
Portb=%00000000
Portc=%00000000
Portd=%00000000
Pauseus 2832 - d
Next c
c = 0
For e = 709 to 1062
f = e
f2 = f / 4
Porta=%00001000
Portb=%01000101
Portc=%01010100
Portd=%01000100
Pauseus f2
Porta=%00000100
Portb=%00000010
Portc=%10000000
Portd=%00101000
Pauseus f2
Porta=%00010000
Portb=%00000010

```

```
Portc=%10000000
Portd=%00101000
Pauseus f2
Porta=%00100010
Portb=%00000000
Portc=%00000000
Portd=%00010000
Pauseus f2
Porta=%00000000
Portb=%00000000
Portc=%00000000
Portd=%00000000
Pauseus 2832 - f
Next e
e = 0
For g = 1063 to 1416
h = g
h2 = h / 4
Porta=%00010100
Portb=%01000101
Portc=%01010100
Portd=%01000100
Pauseus h2
Porta=%00100000
Portb=%00000010
Portc=%10000000
Portd=%00101000
Pauseus h2
Porta=%00000010
Portb=%00000010
Portc=%10000000
Portd=%00101000
Pauseus h2
Porta=%00001000
Portb=%10101000
Portc=%00101010
Portd=%10000010
Pauseus h2
Porta=%00000000
```

```
Portb=%00000000
Portc=%00000000
Portd=%00000000
Pauseus 2832 - h
Next g
g = 0
For i = 1417 to 1770
j = i
j2 = j / 5
Porta=%00000010
Portb=%01000000
Portc=%01000100
Portd=%01000000
Pauseus j2
Porta=%00000100
Portb=%10101000
Portc=%00101010
Portd=%10000010
Pauseus j2
Porta=%00001001
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pauseus j2
Porta=%00010000
Portb=%10101000
Portc=%00101010
Portd=%10000010
Pauseus j2
Porta=%00100000
Portb=%01000000
Portc=%01000100
Portd=%01000000
Pauseus j2
Porta=%00000000
Portb=%00000000
Portc=%00000000
Portd=%00000000
Pauseus 2832 - j
```

```

Next i
i = 0
For k = 1771 to 2124
l = k
l2 = l / 4
Porta=%00000010
Portb=%10101000
Portc=%00101010
Portd=%10000010
Pauseus l2
Porta=%00010001
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pauseus l2
Porta=%00000101
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pauseus l2
Porta=%00100000
Portb=%10101000
Portc=%00101010
Portd=%10000010
Pauseus l2
Porta=%00000000
Portb=%00000000
Portc=%00000000
Portd=%00000000
Pauseus 2832 - l
Next k
k = 0
For m = 2125 to 2478
n = m
n2 = n / 2
Porta=%00000011
Portb=%00010000
Portc=%00000001
Portd=%00000001

```

```
Pauseus n2
Porta=%00100001
Portb=%00010000
Portc=%00000001
Portd=%00000001
Pauseus n2
Porta=%00000000
Portb=%00000000
Portc=%00000000
Portd=%00000000
Pauseus 2832 - n
Next m
m = 0
For o = 2479 to 2832
p = o
Porta=%00111111
Portb=%11111111
Portc=%11111111
Portd=%11111111
Pauseus p
Porta=%00000000
Portb=%00000000
Portc=%00000000
Portd=%00000000
Pauseus 2832 - p
Next o
o = 0
GOTO Main
```