

```

{
*****
*   Name       : Matrix Test.BAS                                     *
*   Author      : Jon Chandler                                       *
*   Notice      : Copyright (c) 2014 Creative Commons 3.0 SA-BY-NC   *
*               : All Rights Reserved                               *
*   Date        : 3/12/2014                                           *
*   Version     : 1.0                                                *
*   Notes       : A brute-force approach to scrolling data across an 8x8 LED *
*               : matrix. Port B is connected to rows via current-limiting *
*               : resistors, columns to Port C with a ULN2803 or similar driver *
*****
}

```

'matrix tests

Device = 18f25k20

Clock = 20

Dim Scanspeed **As Integer**

Dim Index **As Integer**

Dim ScrollSpeed **As Integer**

Dim LoopCount **As Integer**

Dim DisplayData(25) **As Byte**

DisplayData(1) = 0 *'eight blank columns for leader*

DisplayData(2) = 0

DisplayData(3) = 0

DisplayData(4) = 0

DisplayData(5) = 0

DisplayData(6) = 0

DisplayData(7) = 0

DisplayData(8) = 0

DisplayData(9) = 134 *'data to be displayed*

DisplayData(10) = 129

DisplayData(11) = 129

DisplayData(12) = 254

DisplayData(13) = 128

DisplayData(14) = 128

DisplayData(15) = 128

DisplayData(16) = 0 *'eight blank columns of trailer*

DisplayData(17) = 0

DisplayData(18) = 0

DisplayData(19) = 0

DisplayData(20) = 0

DisplayData(21) = 0

DisplayData(22) = 0

DisplayData(23) = 0

TRISB = %00000000

```
TRISC = %00000000
```

```
PORTB = 0
```

```
PORTC = 0
```

```
Scanspeed = 1
```

```
ScrollSpeed = 10
```

```
While 1 = 1
```

```
LoopCount = 0
```

```
For Index = 1 To 15 '8 less than array dimension
```

```
    While LoopCount < ScrollSpeed
```

```
        PORTC = 0
```

```
        PORTB = DisplayData(Index)
```

```
        PORTC = %10000000
```

```
        DelayMS(Scanspeed)
```

```
        PORTC = 0
```

```
        PORTB = DisplayData(Index+1)
```

```
        PORTC = %01000000
```

```
        DelayMS(Scanspeed)
```

```
        PORTC = %00100000
```

```
        PORTC = 0
```

```
        PORTB = DisplayData(Index+2)
```

```
        PORTC = %00100000
```

```
        DelayMS(Scanspeed)
```

```
        PORTC = 0
```

```
        PORTB = DisplayData(Index+3)
```

```
        PORTC = %00010000
```

```
        DelayMS(Scanspeed)
```

```
        PORTC = 0
```

```
        PORTB = DisplayData(Index+4)
```

```
        PORTC = %00010000
```

```
        DelayMS(Scanspeed)
```

```
        PORTC = 0
```

```
        PORTB = DisplayData(Index+5)
```

```
        PORTC = %00001000
```

```
        DelayMS(Scanspeed)
```

```
        PORTC = 0
```

```
        PORTB = DisplayData(Index+6)
```

```
        PORTC = %00000100
```

```
        DelayMS(Scanspeed)
```

```
        PORTC = 0
```

```
        PORTB = DisplayData(Index+7)
```

```
        PORTC = %00000010
```

DelayMS(Scanspeed)

PORTC = 0

PORTB = DisplayData(Index)

PORTC = %00000001

DelayMS(Scanspeed)

Inc(LoopCount)

Wend

LoopCount = 0

Next

Wend