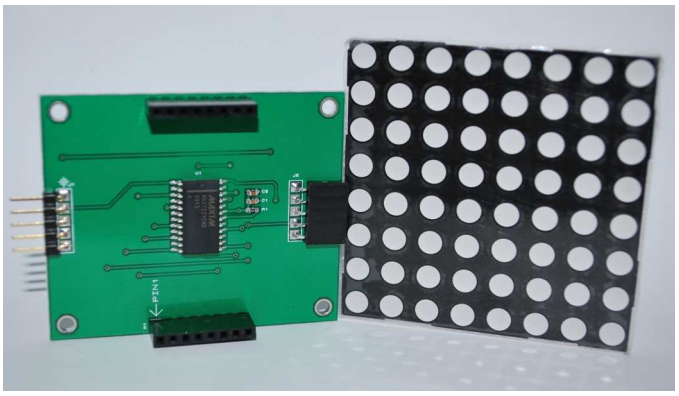
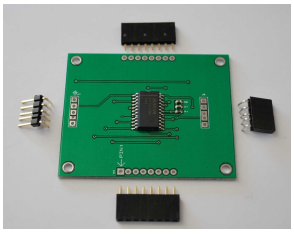


Blue LED Matrix Display with MAX729 LED Driver

The Blue LED matrix display has been provided to allow easy interface via a MAX7219 LED Driver to a matrix of 64 LEDs. A convenient 4-wire serial interface connects to all common microprocessors.

Additionally, multiple LED matrices can be combined to form a larger display from 1-16 matrices. That is a possibility of over 1024 LEDs!

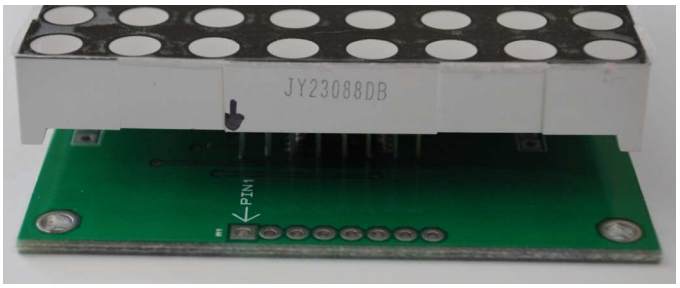
1. Solder Headers



The LED matrix comes with all the surface mount (SMT) components pre-assembLED. All that's left for you to do is solder the headers to the board.

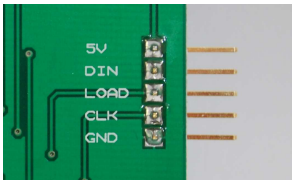
2. Install LED Matrix

The LED matrix display construction allows for simple connection of the LED matrix to the LED matrix pcb. In the photo below pin 1 has been marked to help visualize where this pin is located. All shipped displays will only come with the "JY23088DB" indication to let you know the location of pin 1.



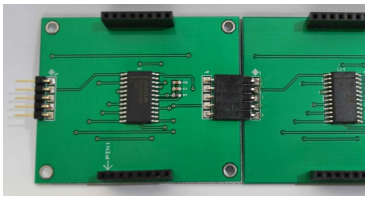
3. Connect Your uController

The display has been designed to use 5V and must be powered by a supply capable of delivering 100mA. The current set resistor of the MAX7219 is 47K ohms and provides approximately 10 mA/led segment.



Only 3 wire connections are necessary to make the display function: DIN, LOAD, and CLK. Please refer to the MAX7219 datasheet for more details.

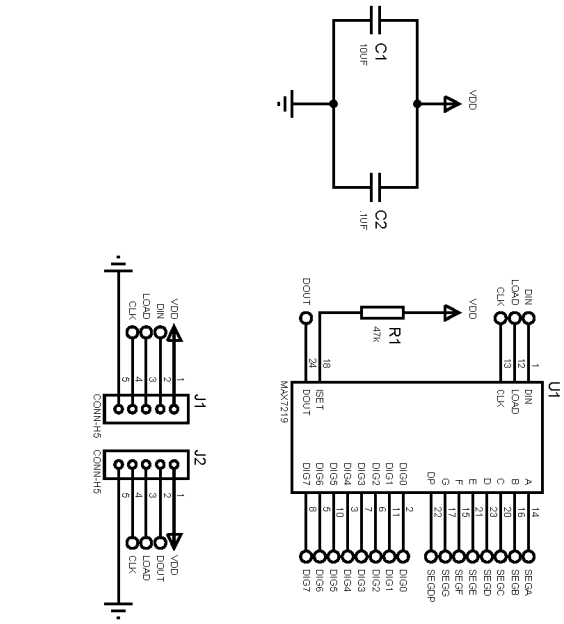
4. Connect Multiple Displays

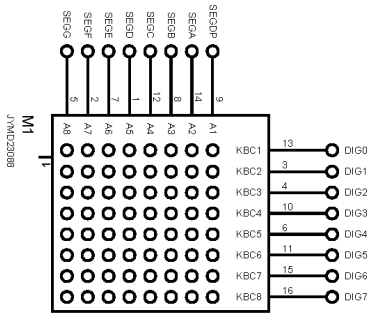


DOUT connections have been made to make it easy to hook up multiple displays. Example code is provided to make this easy to implement in software

5. Code Examples

Arduino Code Examples
PicBasic Code Examples


C1
10UF
VDD
C2
1UF
J1
CONN-H5
VDD
CLK
LOAD
DIN
J2
CONN-H5
CLK
LOAD
DOUT
VDD
R1
47K
DOUT
VDD
DIN
LOAD
CLK
U1
MAX7219
ISET
DOUT
CLK
DIN
LOAD
DIG7
DIG6
DIG5
DIG4
DIG3
DIG2
DIG1
DIG0
DP
A
B
C
D
E
F
G
SEGDP
SEGA
SEGB
SEGC
SEGD
SEGE
SEGF
SEGG


SEGG
SEGF
SEGE
SEGD
SEGC
SEGB
SEGA
SEGDP
M1
JYM2208B
A8
A7
A6
A5
A4
A3
A2
A1
KBC1
KBC2
KBC3
KBC4
KBC5
KBC6
KBC7
KBC8
DIG0
DIG1
DIG2
DIG3
DIG4
DIG5
DIG6
DIG7