SIXTY FOUR PIXELS
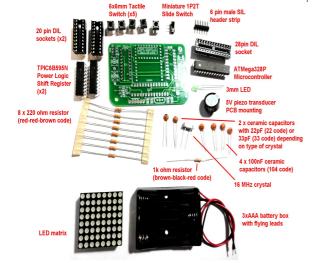
For full build instructions and step-by-step guides, please check out
https://github.com/hotchk155/AVRGame/wiki

Your kit includes:

- **Printed circuit board**
- **IC1, IC2** - TPIC6B595N power logic shift register
- **IC3** - ATMEGA328P-PU microcontroller
- **R1-R8** - 220R resistor (red-red-black code)
- **R9** - 1K resistor (brown-black-red code)
- **C1, C2** - 33pF ceramic capacitor (33 code)
- **C3, C4, C5, C6** - 100nF cap (104 code)
- **X1** - 16MHz crystal
- **PWR** - Miniature slide switch
- **LED1** - 3MM standard LED. *The longer leg is the anode (+ terminal)*
- **SPK1** - 5V piezo transducer. *The anode (+ terminal) is identified on the label. Remove the label after fitting.*
- **A,B,C,D,RESET** - 6mm tactile switch
- **SERIAL -** 6 pin male header 0.1" pitch. *This is intended to fit a standard FTDI USB-to-TTL serial programming cable (not supplied)*
- **DISP1** - 8x8 red/green LED matrix. *Pin 1 is indicated with a coloured label. Please ensure correct fitting to the board – it is very difficult to remove if soldered incorrectly!*
- **IC sockets** (20 and 28 pin). *Line up the notch on the end with the image on the board*
- **3xAAA battery box** with flying leads. *Trim leads to required length. Please see web site for advice*
- **Double sided foam pads** to fix battery box to reverse of PCB. *These need to be cut to fit. Please see web site for advice.*

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6x6mm Tactile Switch (x5)
Miniature 1P2T Slide Switch
6 pin male SIL header strip
20 pin DIL sockets (x2)
28pin DIL socket
ATMega328P Microcontroller
TPIC6B595N Power Logic Shift Register (x2)
3mm LED
5V piezo transducer PCB mounting
8 x 220 ohm resistor (red-red-brown code)
2 x ceramic capacitors with 22pF (22 code) or 33pF (33 code) depending on type of crystal
1k ohm resistor (brown-black-red code)
4 x 100nF ceramic capacitors (104 code)
16 MHz crystal
LED matrix
3xAAA battery box with flying leads