Matrix Clock Connections

1. Push Button 1 - Setup Mode - GND and Arduino pin 2
2. Push Button 2 – Increment setup value – GND and Arduino pin 3
3. Push Button 3 – Decrement setup value – GND and Arduino pin 4
4. SPDT Chime switch – Center to GND, outer contacts to Arduino pins 5 and 6
5. Max7219 Matrix – two matrices connected in chain (5 wires) to produce 8 units altogether. VCC and ground connected directly to 5 v. power adapter (NOT through Arduino Mega). CLK, DATA and CS connected to pins 52,51, and 53 respectively
6. RTC connected to Arduino 5v, GND and SDA, SLC
7. DHT connected to 5v, GND and Arduino pin 9
8. Arduino FX Sound Board connected in GPIO mode
   1. Pins 0-9 connected to Pins 30-39 on Arduino Mega
   2. ACT pin on Fx soundboard connected to Arduino pin 8
   3. Sounds loaded onto FX SoundBoard in OGG format
      1. T0 – Short single Westminster Chime
      2. T1 – Westminster 15 minute
      3. T2 – Westminster 30 minute
      4. T3 – Westminster 45 minute
      5. T4 – Westminster hour
      6. T5 – Trailing (longer) Westminster Chime
      7. T6 – Short Single bell chime
      8. T7 – Trailing (longer) single bell chime
      9. T8 – Boot up sound (plays when powered up to signal sound is working TaDA sound)
      10. T9 – Game of Thrones theme to play during Easter Egg Display
   4. Power (Vcc and GND) connected to 5v and GND on Arduino Mega
   5. Speaker + and – to 8 ohm speaker
9. Photoresistor – Connected to:
   1. Arduino 5v
   2. Arduino pin A0
   3. Through a 10K ohm resistor to Arduino GND
10. Power connections
    1. 5 volt 2 amp adapter used because of power demands
    2. VCC and power directly (not through Arduino) to 7219 matrix
    3. VCC and power to Arduino Mega GND and 5v INPUT
    4. (Done this way because if you draw the 5V through the Arduino it gets very hot)
11. Sound Files – available through internet sources or I can provide them to you.