

Charlieplexing

L LEDs can be driven by

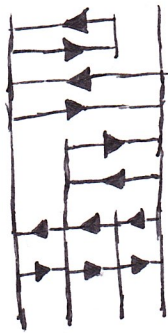
$$\frac{1 + \sqrt{1 + 4L}}{2} \text{ pins}$$

Likewise,

2n pins drives n<sup>2</sup> LEDs

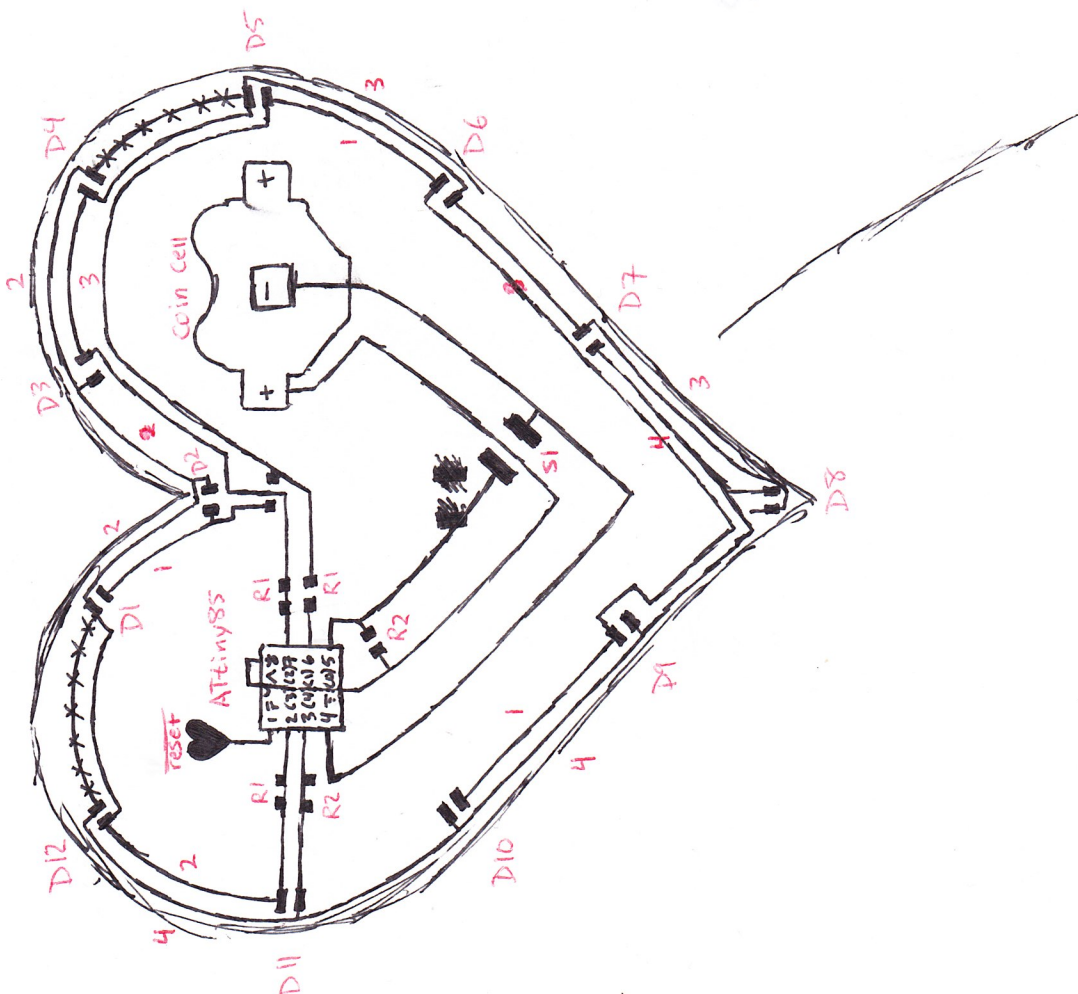
n pins = n<sup>2</sup> - n LEDs

timestamp: 4:17:33 pm  
1/29/2013



Pins	LED's
2	2
3	6
4	12
5	20
6	30
7	42
8	56

11 red SMD LED's left  
Set up circuit for 12  
Cannibalize an LED from XMAS Card



ATtiny85

V	8	7	2
1	2	3	4
2	3	4	5
3	4	5	6
4	5	6	7
5	6	7	8

uses port B0-4

hex  
0 x00  
1 x01  
2 x02  
3 x03  
4 x04

binary  
0 b0000  
1 b0001  
2 b0010  
3 b0011  
4 b0100  
5 b0101  
6 b0110  
7 b0111  
8 b1000