

Pretty Lights-W/ TVT

Never ending, random light show.

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Step	Label	Addr	Code	Mnem	Comments
1	Lights	000	016		Load B
2		001	000		Pattern hold time counter
3		002	105		Get Switches
4	Left	003	046		Load E
5		004	040		Pattern shift left counter
6	A	005	121		Send to Lamps
7		006	041		Dec E
8		007	150		Jump if zero
9		010	030		go right
10		011	001		
11		012	002		Rotate Left
12		013	106		Call Delay
13		014	055		
14		015	001		
15		016	011		Dec B
16		017	110		Jump not zero
17		020	005		"A"
18		021	001		
19		022	310		Copy A to B
20		023	105		Get switches
21		024	211		Add A to B
22		025	104		Jump
23		026	005		"A"
24		027	001		
25	Right	030	046		Load E
26		031	070		Pattern shift Right counter
27	B	032	121		Send to Lamps
28		033	041		Dec E
29		034	150		Jump if zero
30		035	003		
31		036	001		
32		037	012		Rotate Right
33		040	106		Call Delay
34		041	055		
35		042	001		
36		043	011		Dec B
37		044	110		Jump if zero
38		045	032		
39		046	001		
40		047	310		Copy A to B
41		050	105		Get switches
42		051	211		Add A to B
43		052	104		Jump
44		053	005		
45		054	001		
46	Delay	055	026		Load C
47		056	006		
48	Loop 3	057	036		Load D
49		060	000		
50	Loop 2	061	031		Dec D
51		062	110		Jump not zero Loop 2
52		063	076		
53		064	001		
54		065	021		Dec C
55		066	110		Jump not zero Loop 3
56		067	074		
57		070	001		
58	Screen dazzle	071	074	CPI	Compare A with
59		072	200		Frequency of screen updates, Lower=More

There is probably a simpler way to do this, but I wrote this, and then kept adding to it. So now it is just kind of a mess! :)

Randomize pattern a little

Go Left for a while

Randomize again

Screen dazzle loads 256 bytes of data stored on page 002, and sends to the Digital Group TVT. The output start address is randomized somewhat, and provides a shifting video out display. Keep the routines in even if you don't have a TVT, it makes for a better light show! If you have a TVT, load page 002 with some stars, a little text, or whatever, & go!

60		073	043	RTC	Return if carry set	
61		074	320	LCA	Load C with A	Save contents of A in C
62		075	056	LHI	Load H with screen page	Page location of screen data
63		076	002			
64		077	360	LLA	Set start location randomly	
65	GETCHAR	100	307	LAM	Load A with data	Get a character from data mem
66		101	123	OUTa	Send to screen	
67		102	106	CAL	Call DELAY2	
68		103	116			This section can be omitted for faster blink
69		104	001			
70		105	250	XRA	Clear A	
71		106	123	OUTa	Send to screen	
72		107	060	INL	Increment next get addr	
73		110	302	LAC	Where did we start?	
74		111	276	CPL	Compare with where we are	
75		112	110	JFZ	Jump not done yet GETCHAR	
76		113	100			
77		114	001			
78		115	007	RET	Return	
79	DELAY2	116	036		Load D	
80		117	020		Delay count	
81	Loop 4	120	031		Dec D	
82		121	110		Jump not zero Loop 4	
83		122	120			
84		123	001			
85		124	007	RET	Return	