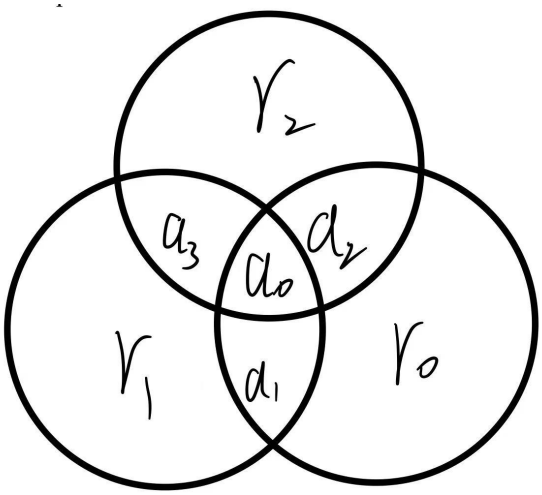
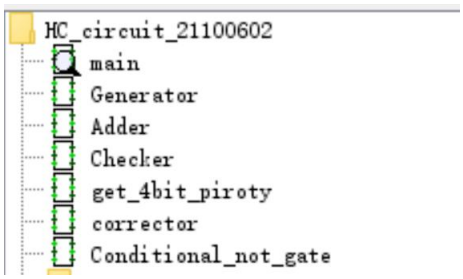


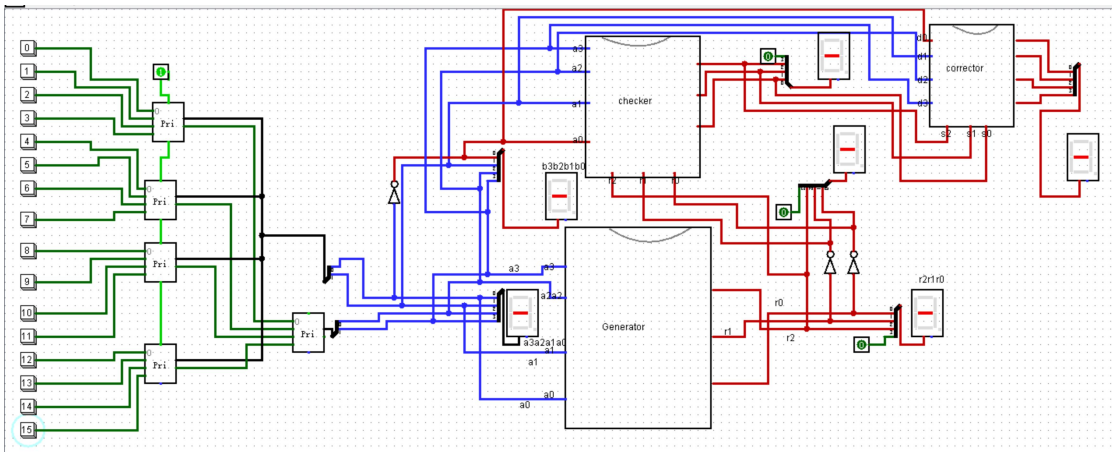
The haming table I used

a3	a2	a1	a0	r2	r1	r0	Hex Value
0	0	0	0	0	0	0	0
0	0	0	1	1	1	1	7
0	0	1	0	0	1	1	3
0	0	1	1	1	0	0	4
0	1	0	0	1	0	1	5
0	1	0	1	0	1	0	2
0	1	1	0	1	1	0	6
0	1	1	1	0	0	1	1
1	0	0	0	1	1	0	6
1	0	0	1	0	0	1	1
1	0	1	0	1	0	1	5
1	0	1	1	0	1	0	2
1	1	0	0	0	1	1	3
1	1	0	1	1	0	0	4
1	1	1	0	0	0	0	0
1	1	1	1	1	1	1	7

Screenshots of the circuit.

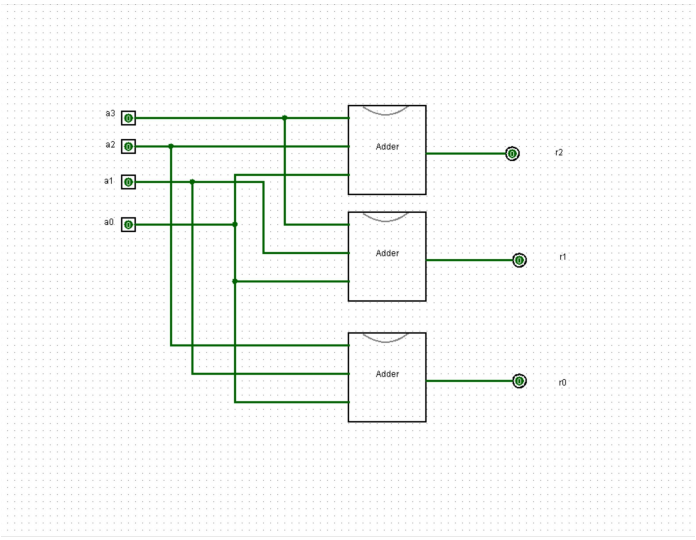


(1)Main circuit（Because have already done the corrector so just show it here）

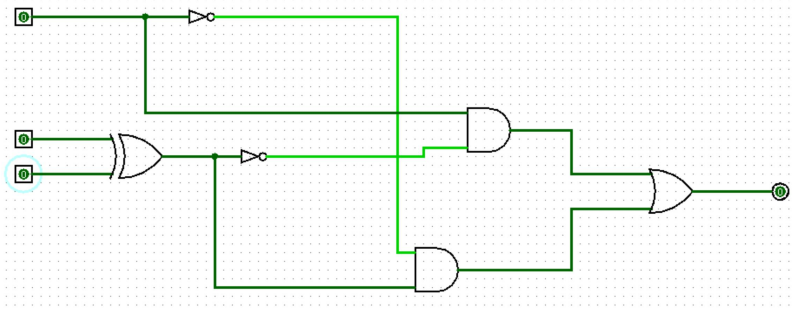


(2) sub circuit

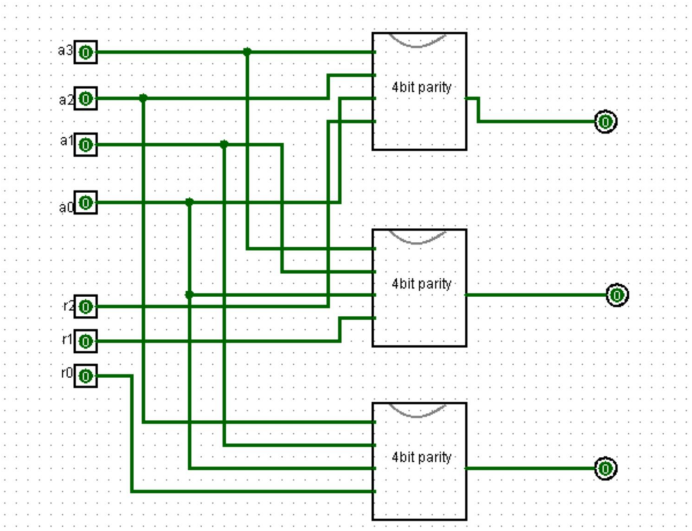
generator



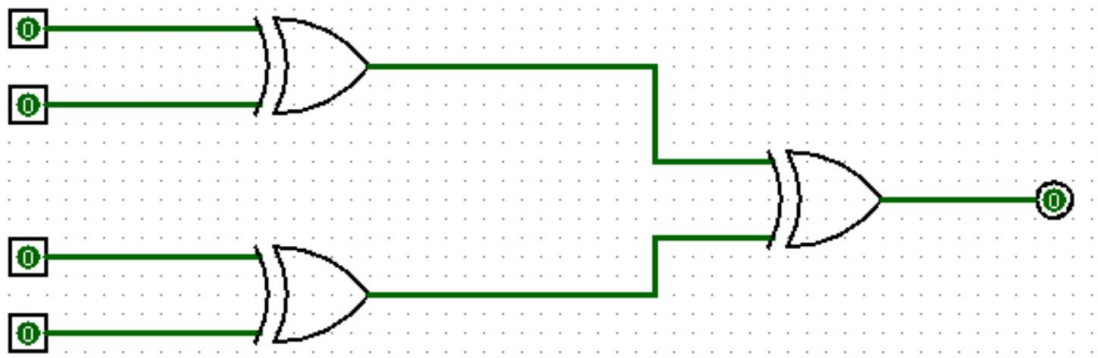
Adder used in generator



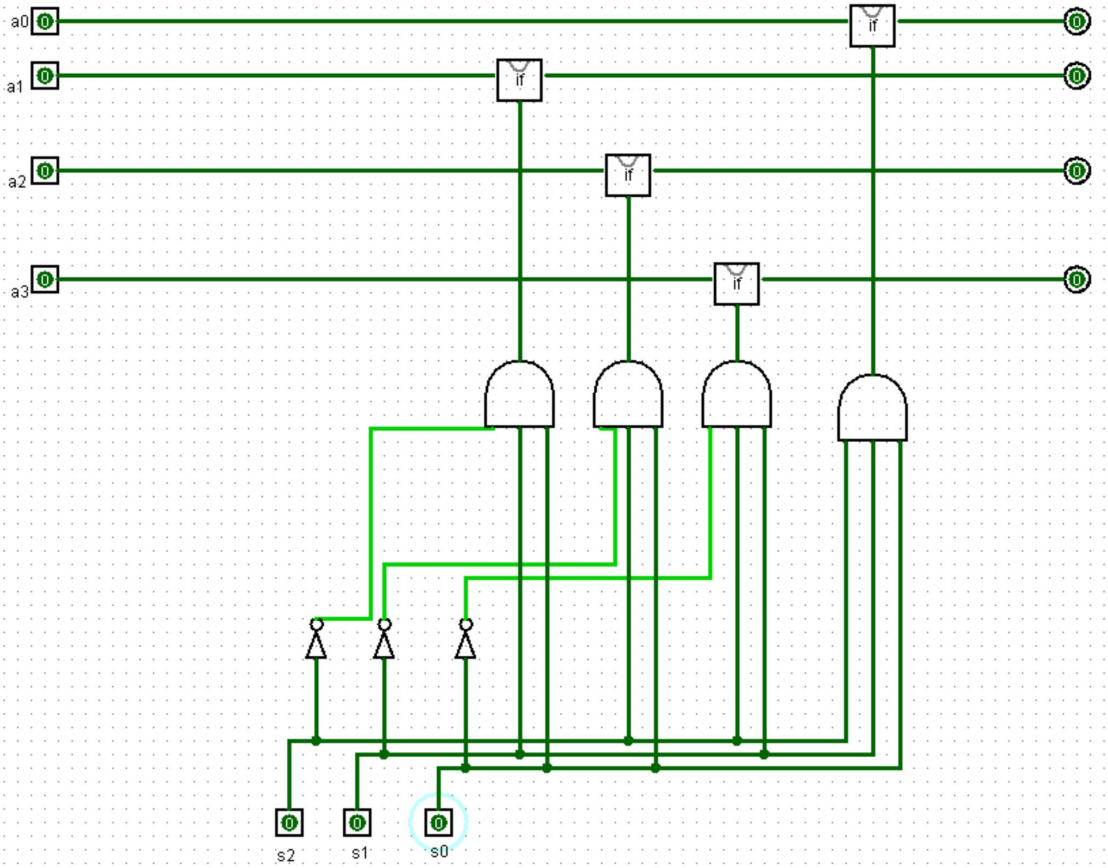
Checker



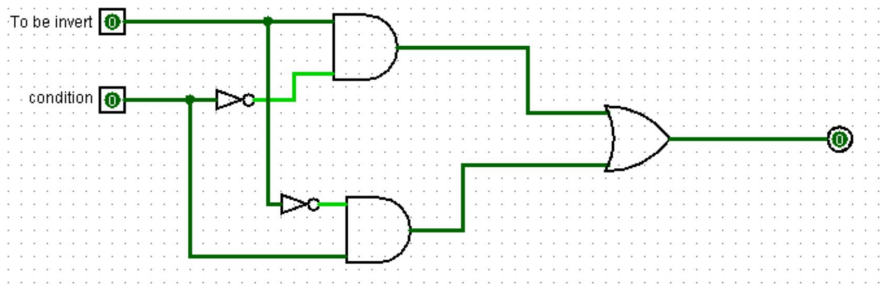
4 bit parity used in checker



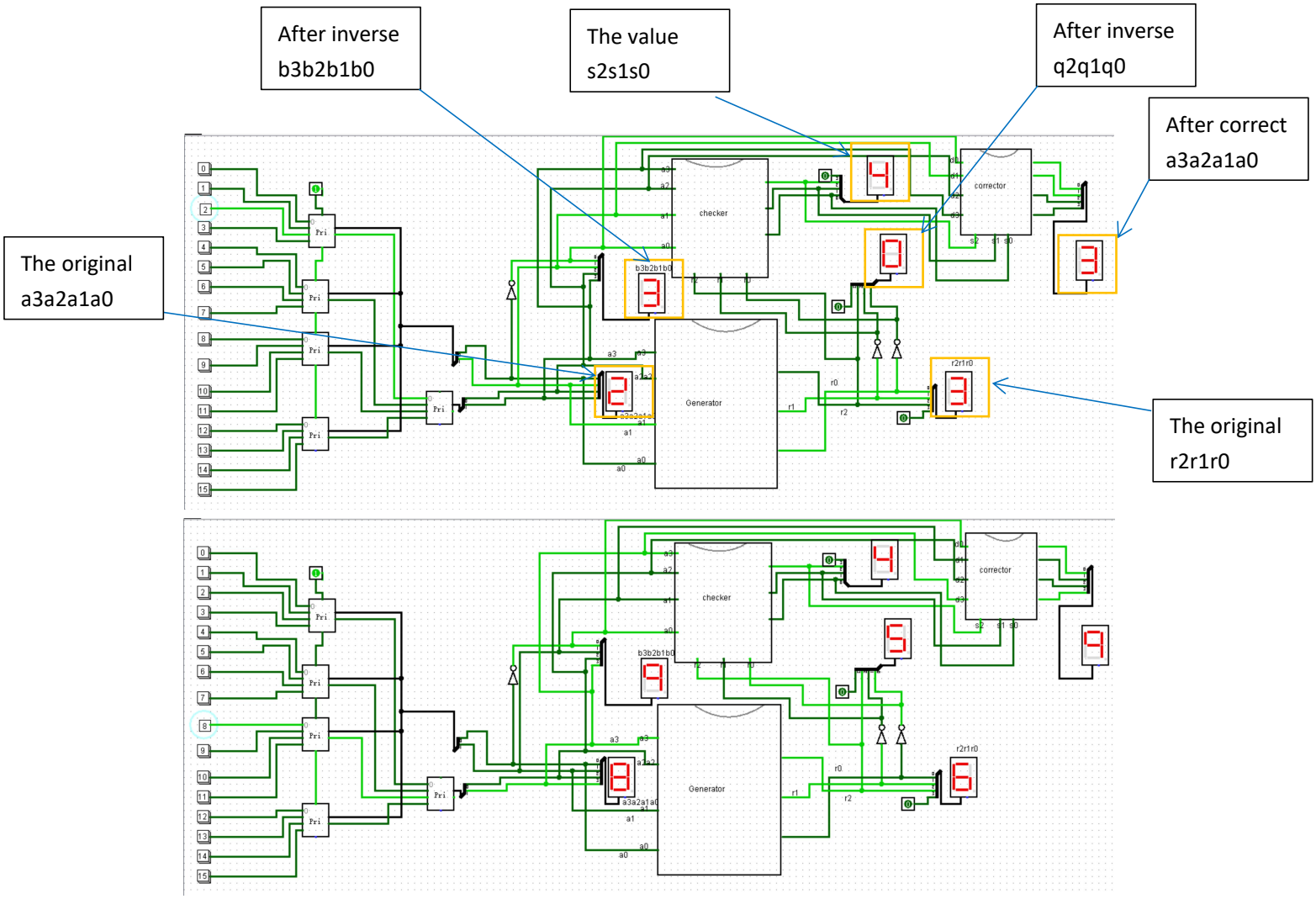
corrector

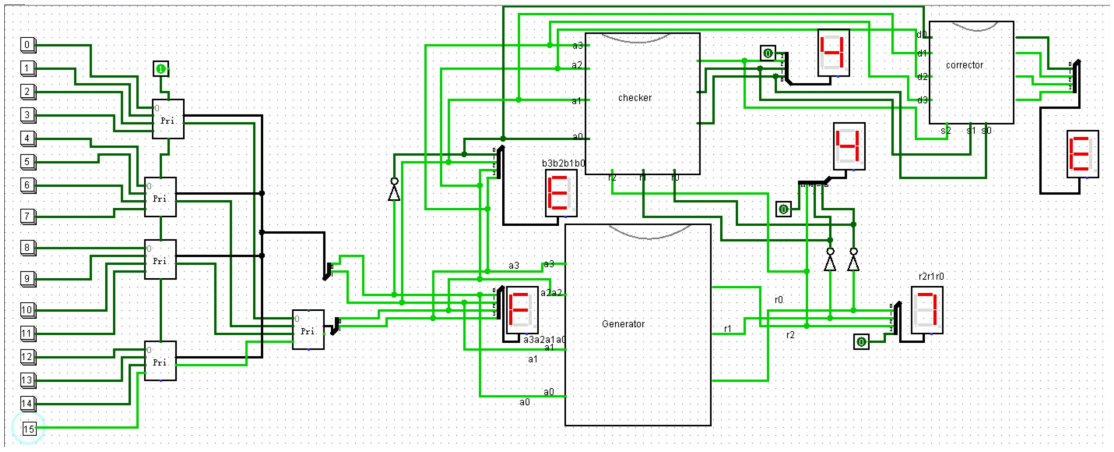


If used in corrector



Screenshots of the result




0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
Pri
Pri
Pri
Pri
Pri
checker
a3
a2
a1
a0
b3b2b1b0
f2
f1
f0
corrector
d3
d2
d1
d0
s2
s1
s0
Generator
a3
a2a2
a3a2a1a0
a1
a0
r0
r1
r2
r2r1r0