

$$j_0 = q_1 x + \overline{q_1} \overline{y}$$

$$k_0 = \overline{q_1} x \overline{y}$$

$$j_1 = \overline{q_0} x$$

$$k_1 = q_0 + x \overline{y}$$

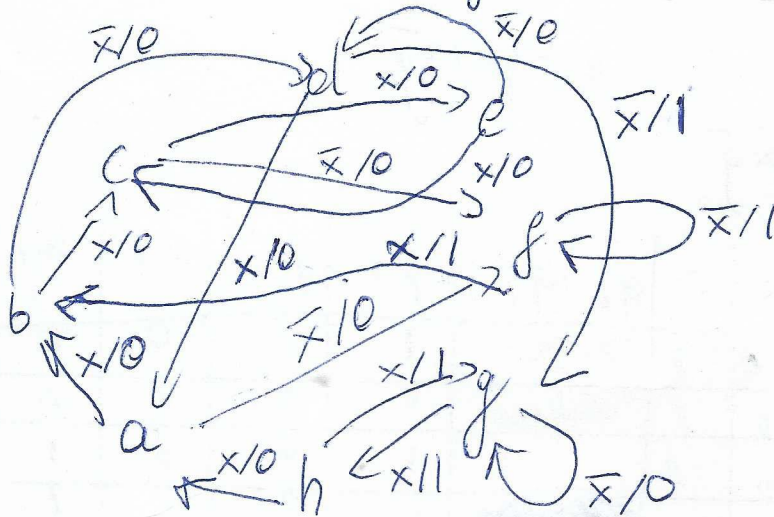
$$z = q_0 \overline{x} \overline{y} + q_1 \overline{x} \overline{y}$$

~~Handwritten scribble~~

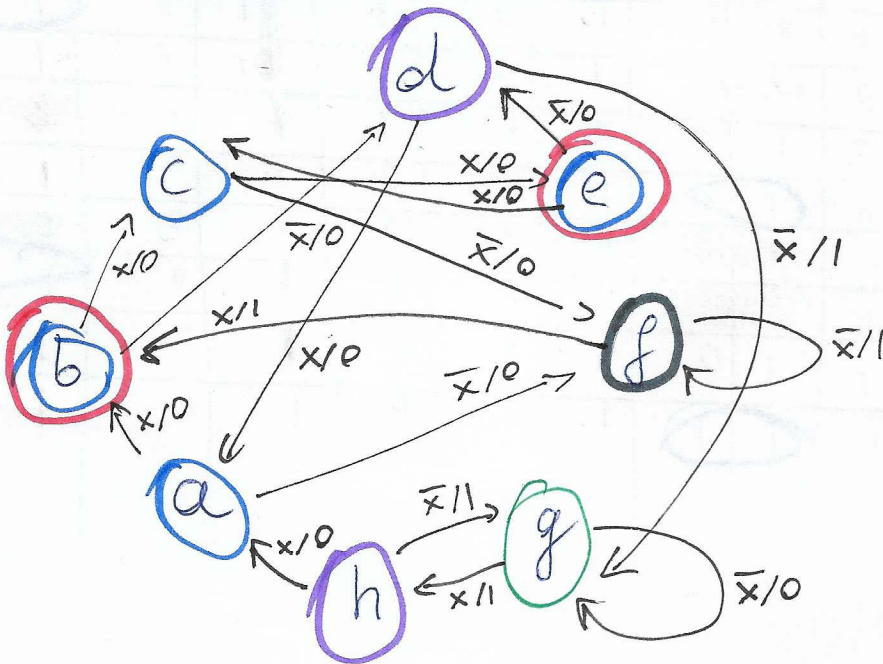
| x | y | q ₀ | q ₁ | j ₀ | j ₁ | k ₀ | k ₁ | z | q _{0n} | q _{1n} |
|---|---|----------------|----------------|----------------|----------------|----------------|----------------|---|-----------------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |

2.

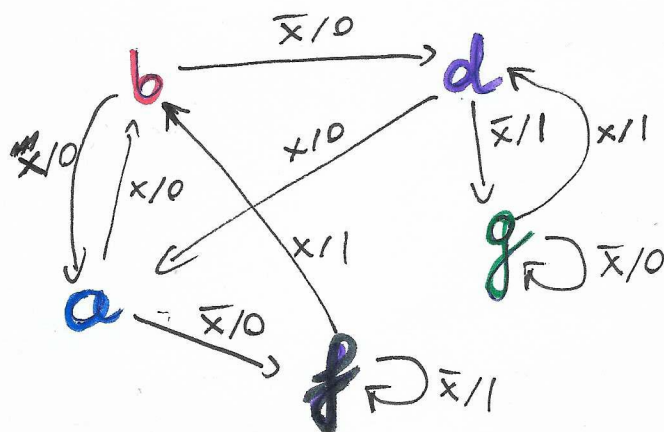
(a b c d e f g h)



(a b c e) (h d) (f) (g)



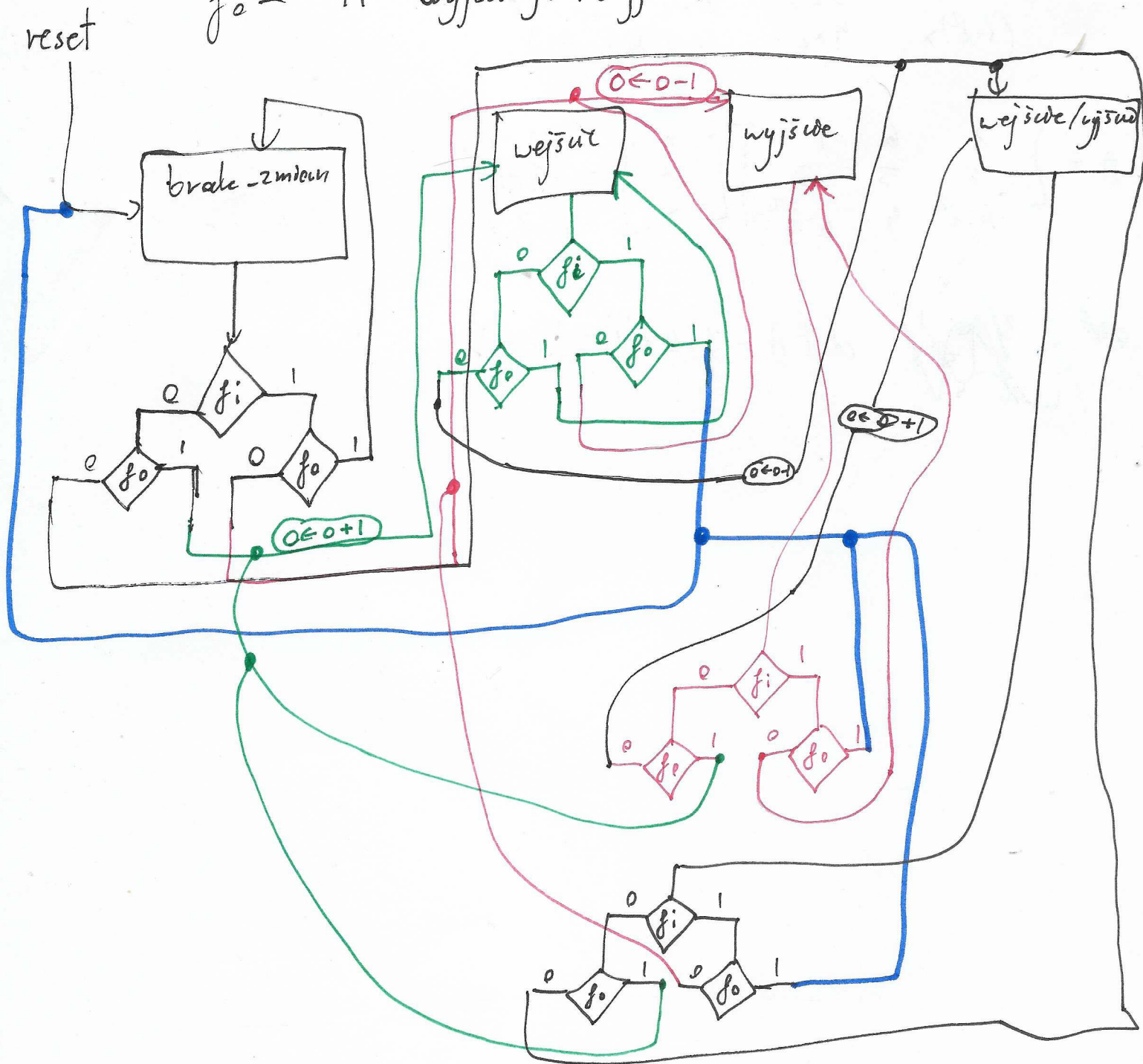
(a b c) (b e) (d h) (g) (f)



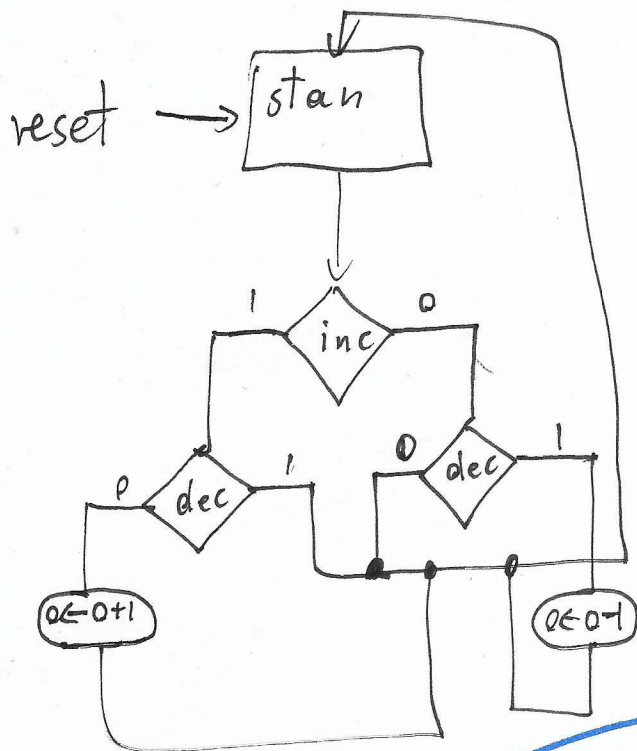
| q | $\frac{q_0}{x}$ | q_0 | 0 | 0 |
|---|-----------------|-------|---|---|
| a | f | b | 0 | 0 |
| b | d | a | 0 | 0 |
| d | g | a | 1 | 0 |
| g | g | d | 0 | 1 |
| f | f | b | 1 | 1 |

4.

f_i - stan niski to przerwanie włącz w drzwi wejściowe ($wj's'we$)
 f_o - -11- wyjściowy ($wj's'we$)

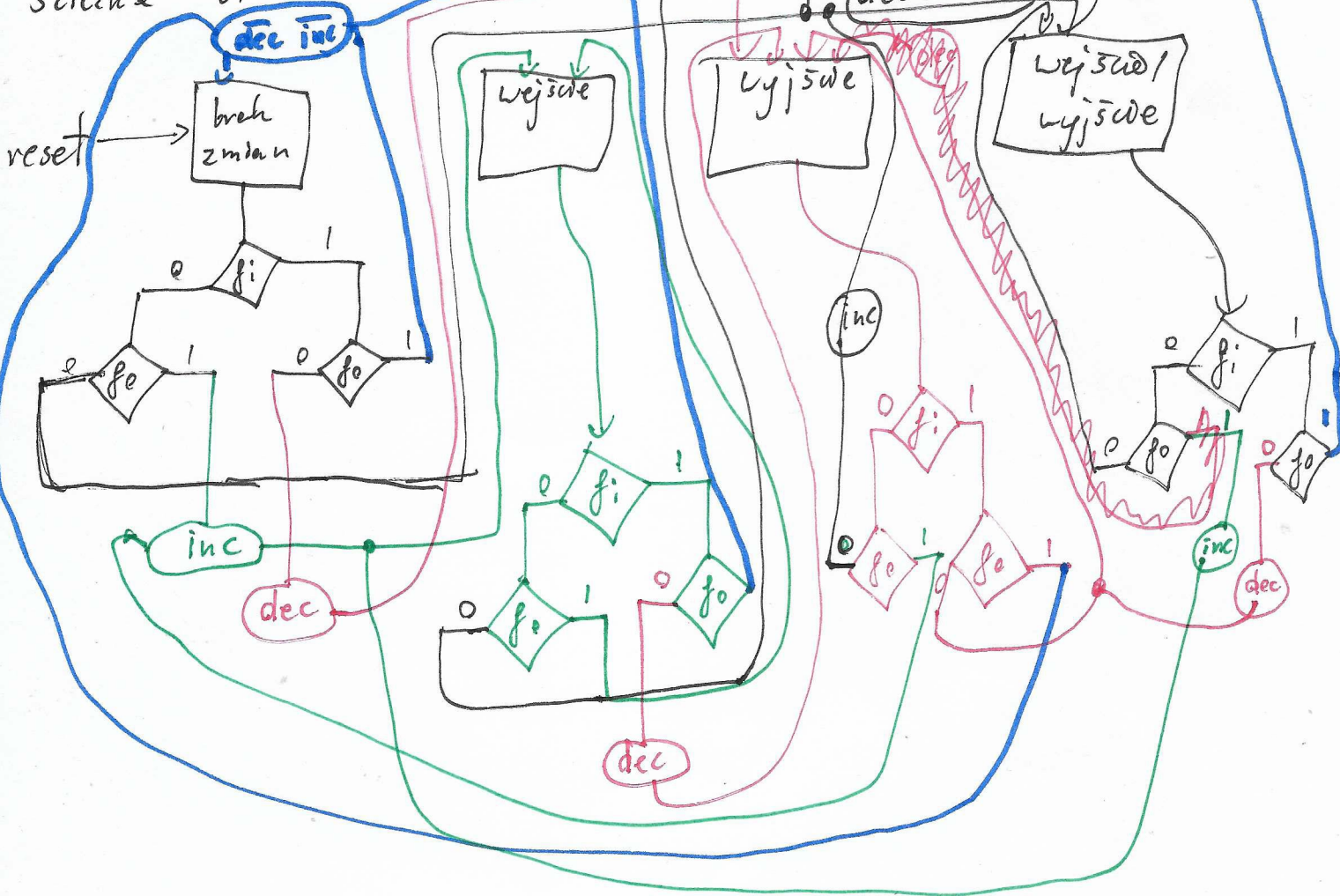


5. Ścieżka danych sterowania danymi



Oznaczenia analogiczne do zad 4.
 dec - stan wysłuch to dekrementacja
 inc - stan wysłuch to inkrementacja
 stan niski to brak zmian
 zarówno dec i inc w stanie wysłuch to ~~brak~~ także brak zmian.

Ścieżka sterowania



6.

