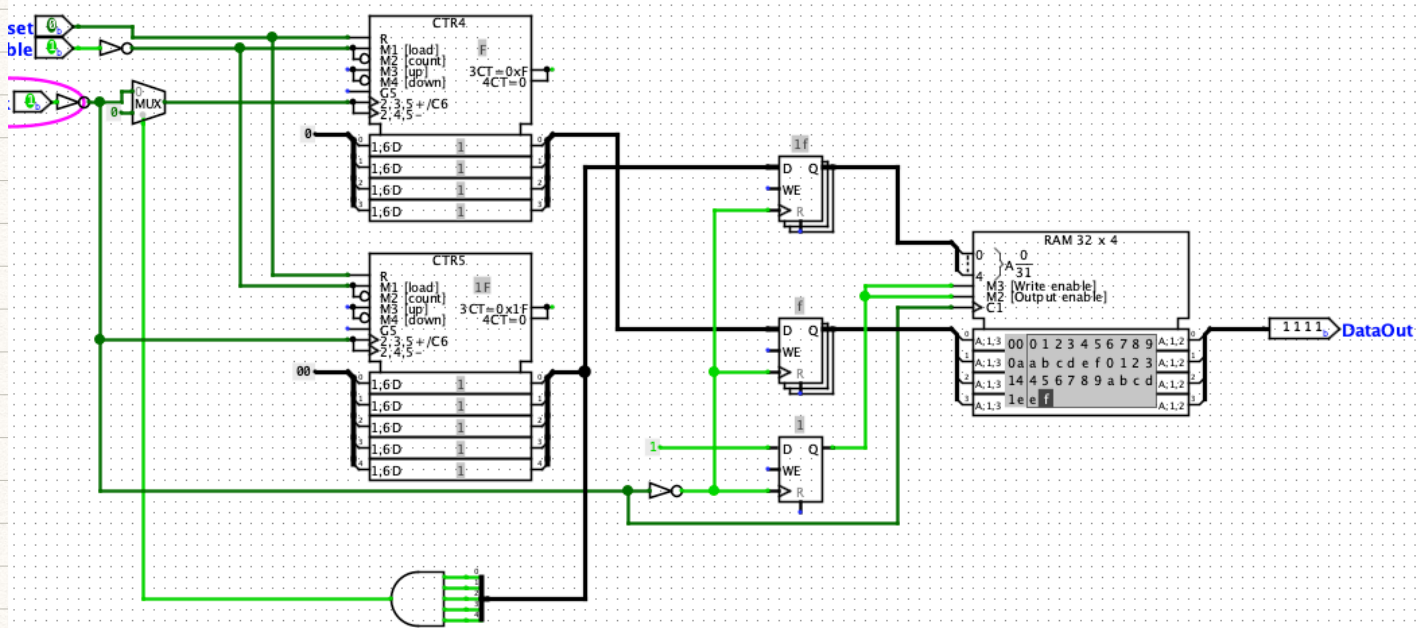
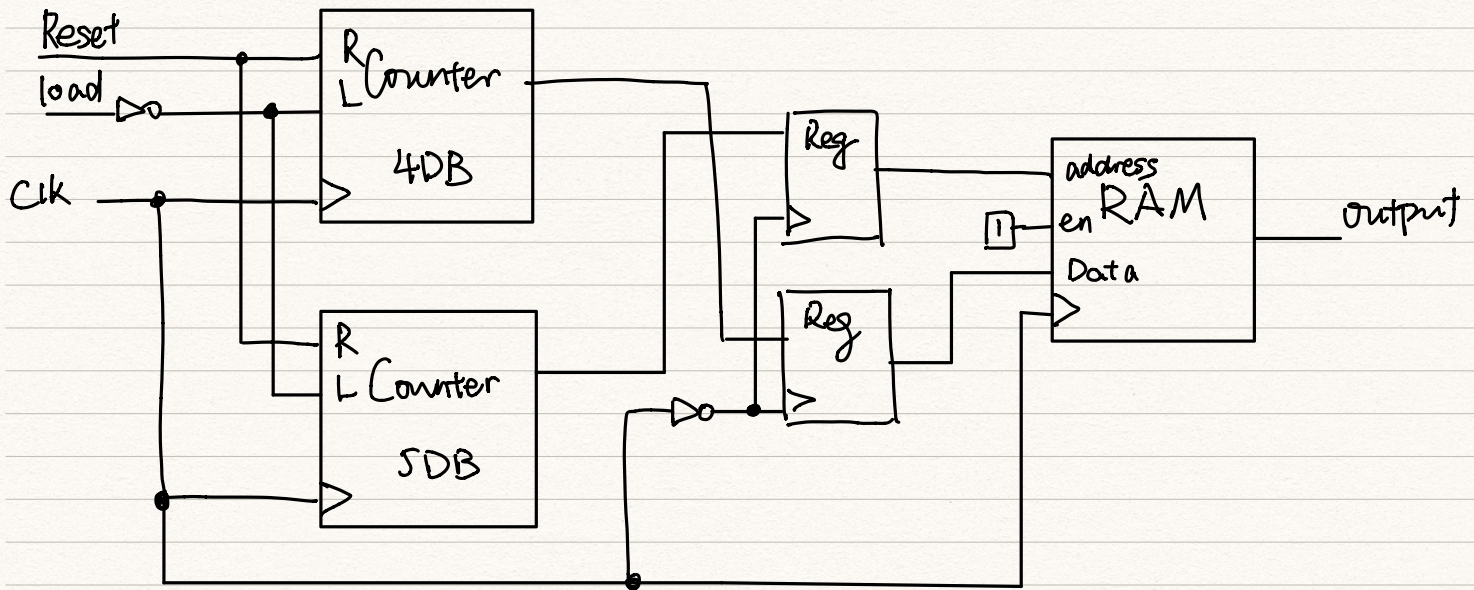


Part II:

2. Both signal off : RAM does not write or read
 Both signal on : RAM write and read simultaneously.

5. Schematic

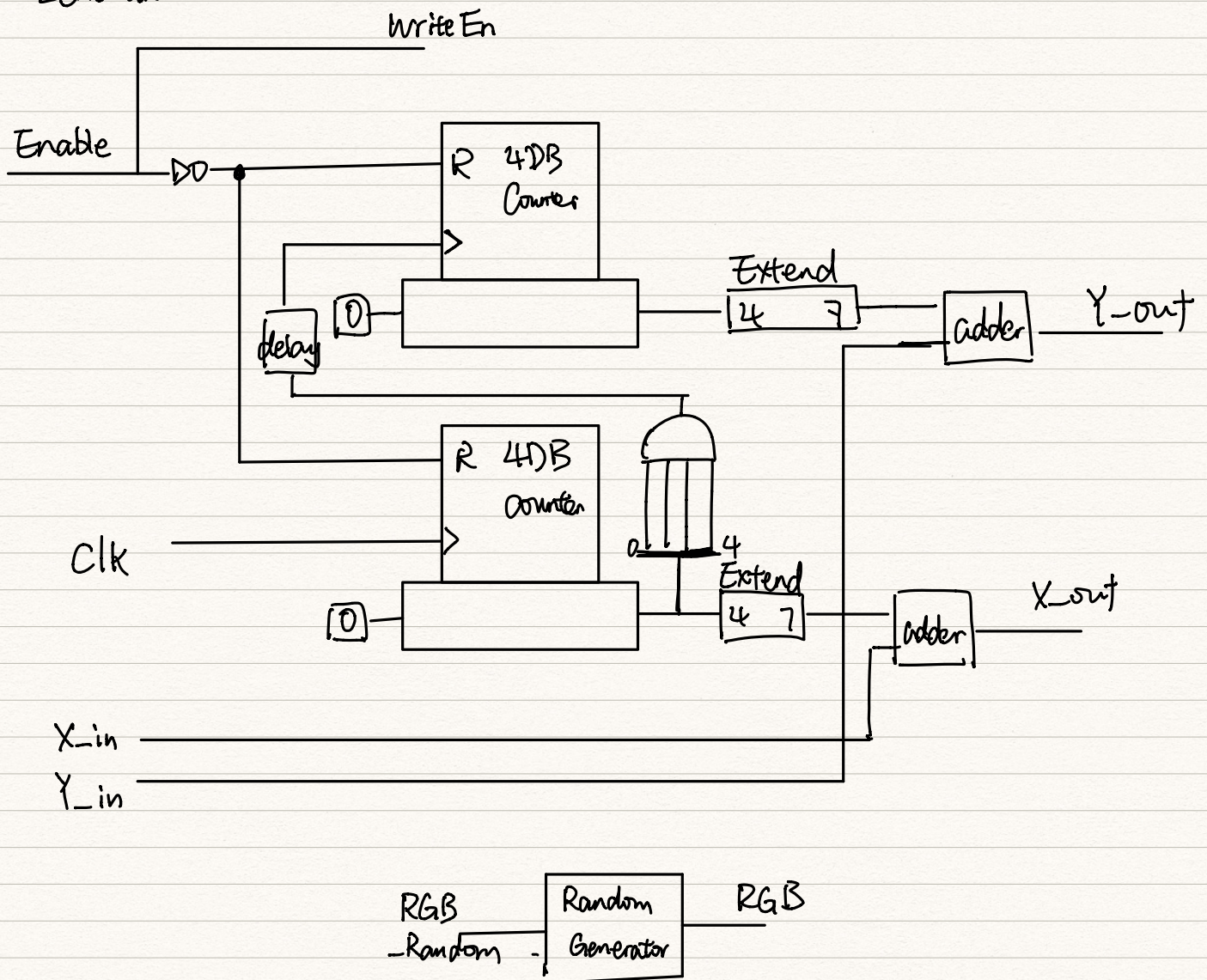


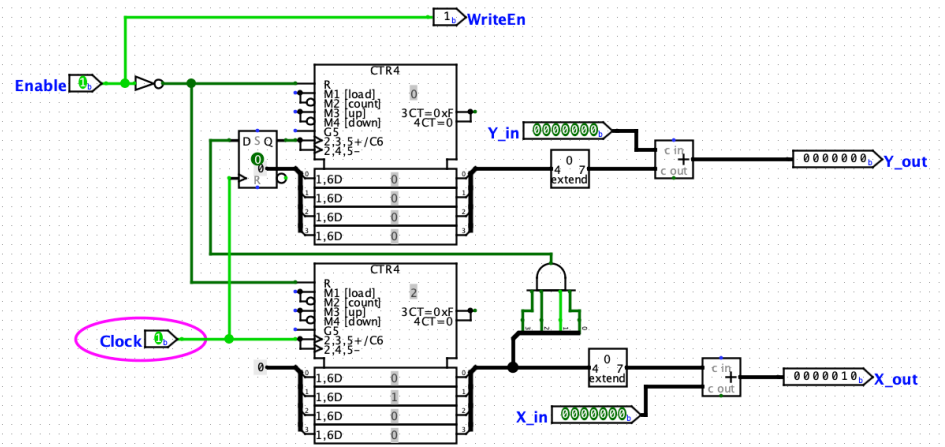
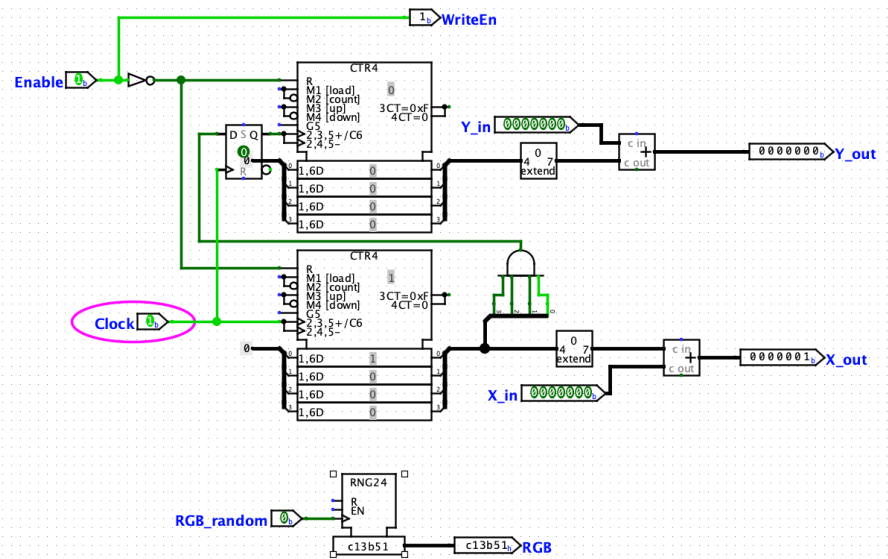
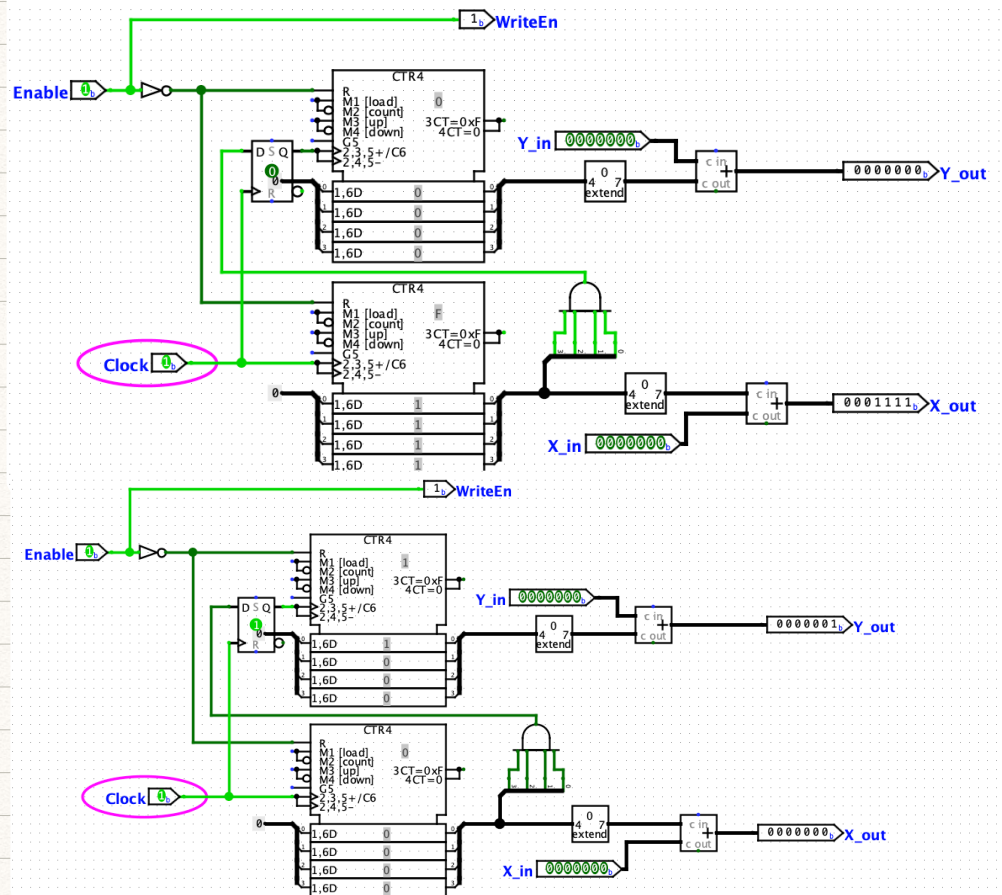
Part II :

1. What happens if you don't turn Enable off before updating X and Y?
2. What happens if you turn Enable off before 256 clock cycles have passed?
3. What happens if you turn Reset on while Enable is on?

1. The pixel will continue to filled with color on new X.Y.
2. It will leave an incomplete square on canvas.
3. Every pixel will go to black and the it will start to draw a new square when we set reset back to 0.

1. Schematic



$$X: 1 \rightarrow 2$$
$$Y: 0 \rightarrow 0$$

$$X: 15 \rightarrow 0$$
$$Y: 0 \rightarrow 1$$


2. FSM .

0 : change color

1 : enable drawing

3、

