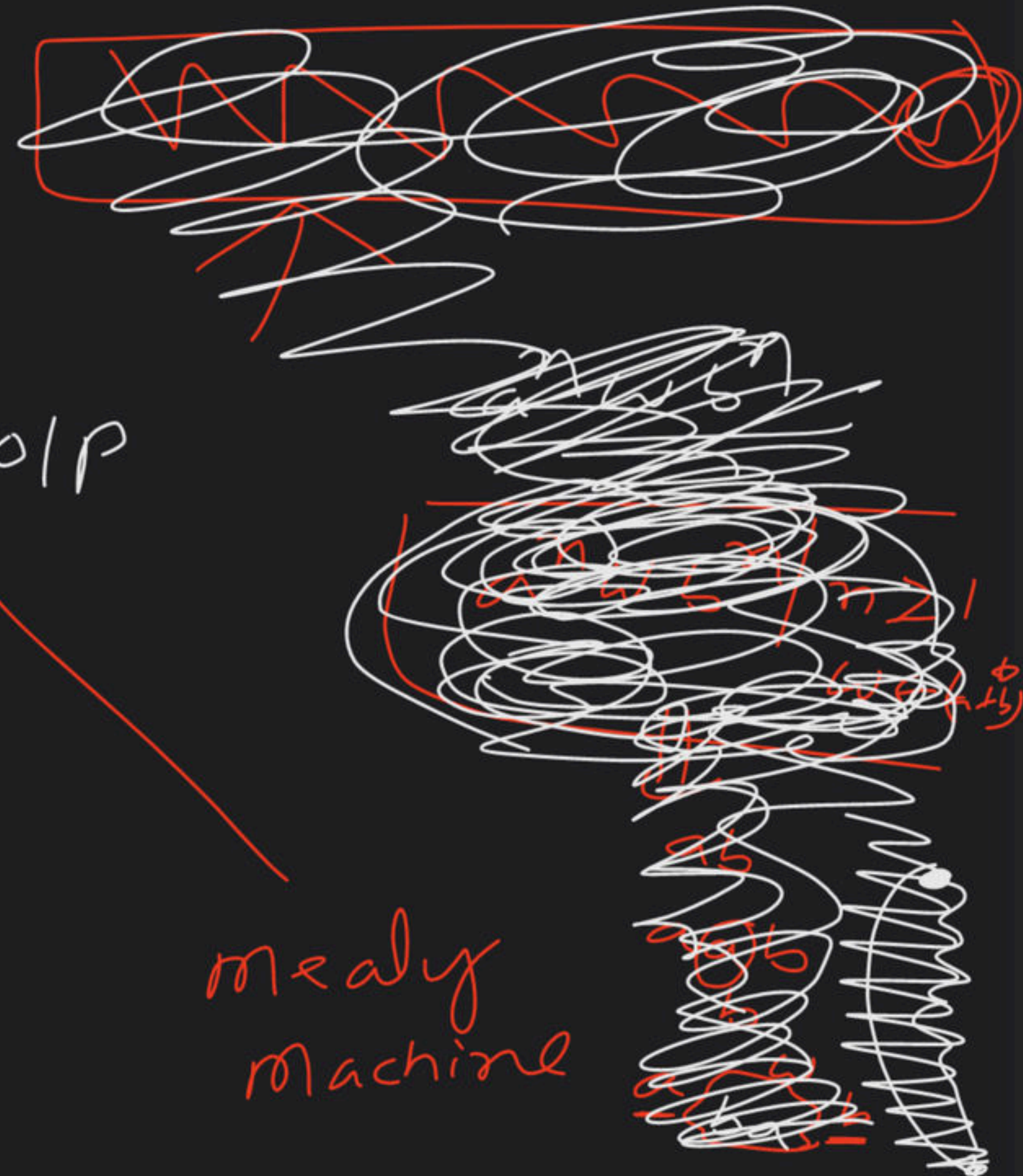
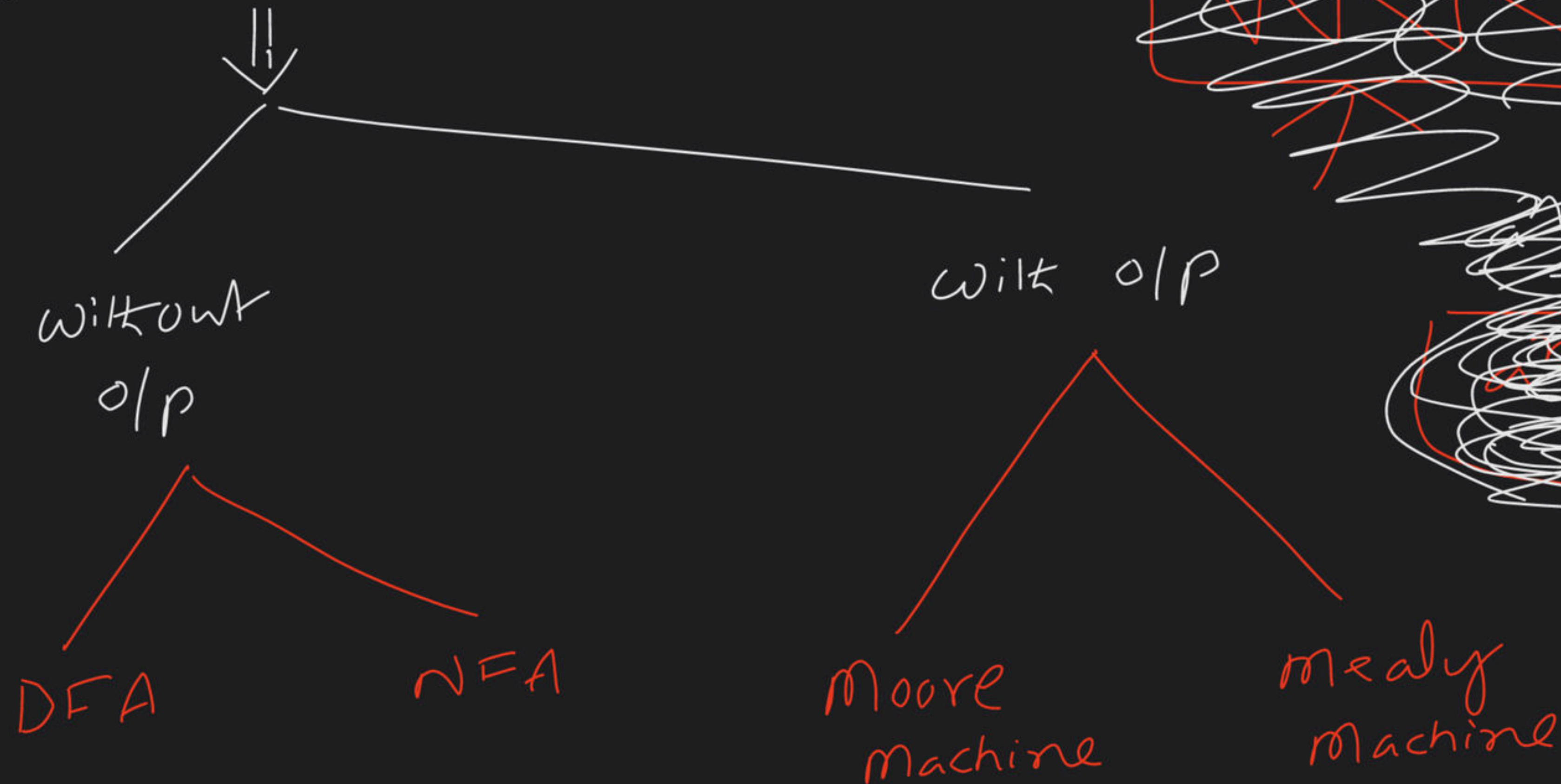


Finite Automata & Regular Language

Finite Automata



FA — without-output (DFA, NFA)

Transition Function

FA $M = (Q, \Sigma, F, \delta, q_0)$

start state

(or)

Initial state

set of final states

i/p alphabet

Finite Set of states

or

non-empty

$$F \subseteq Q$$

5-Tuple machine

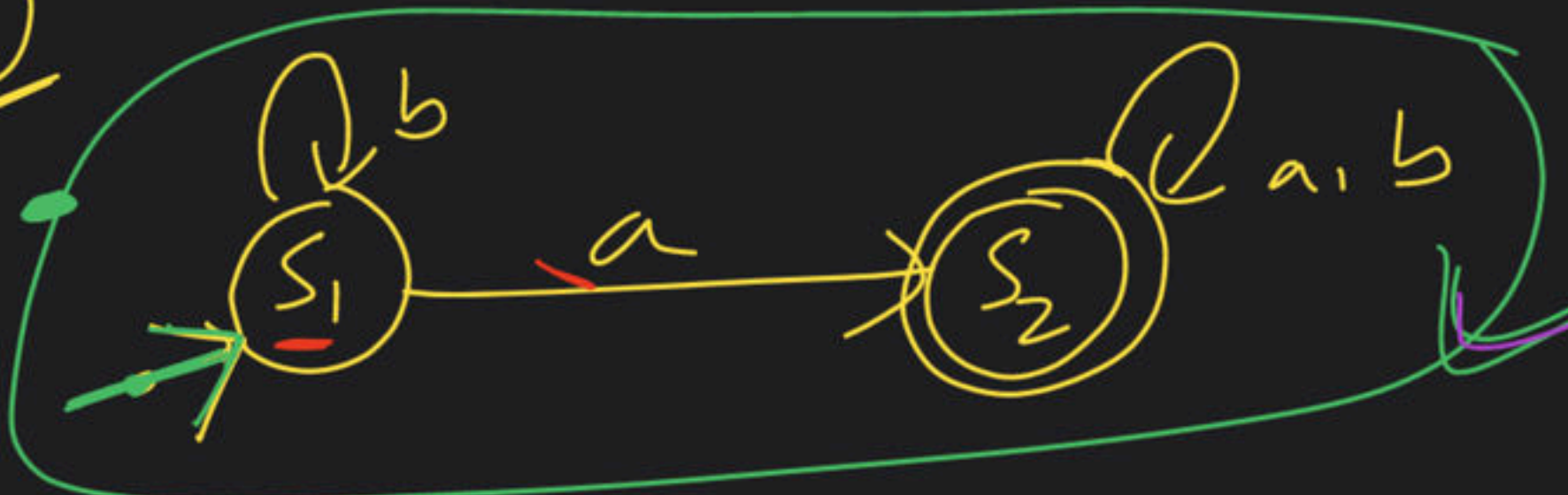
Representation of FA



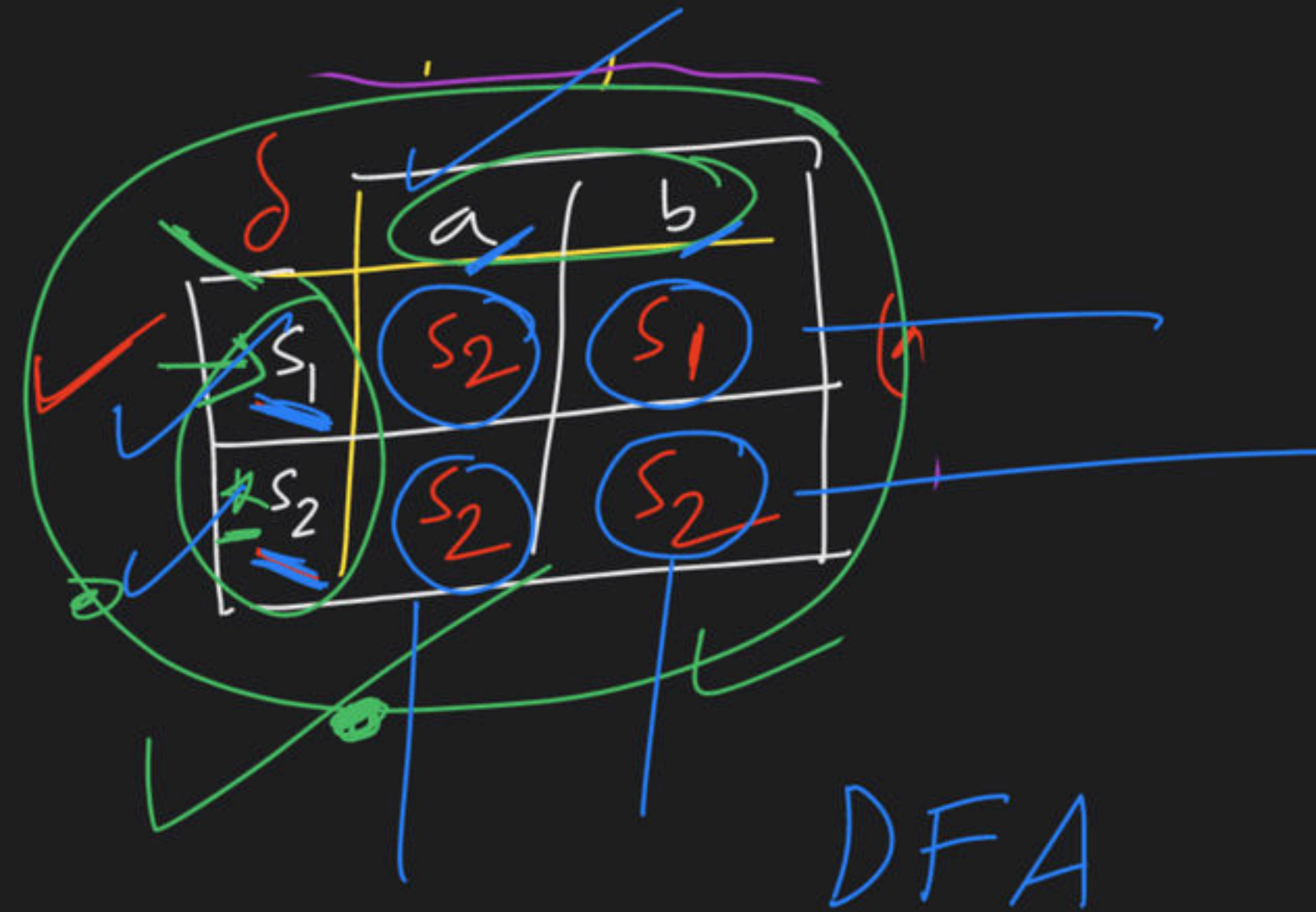
① Transition Diagram

② " " Table

①



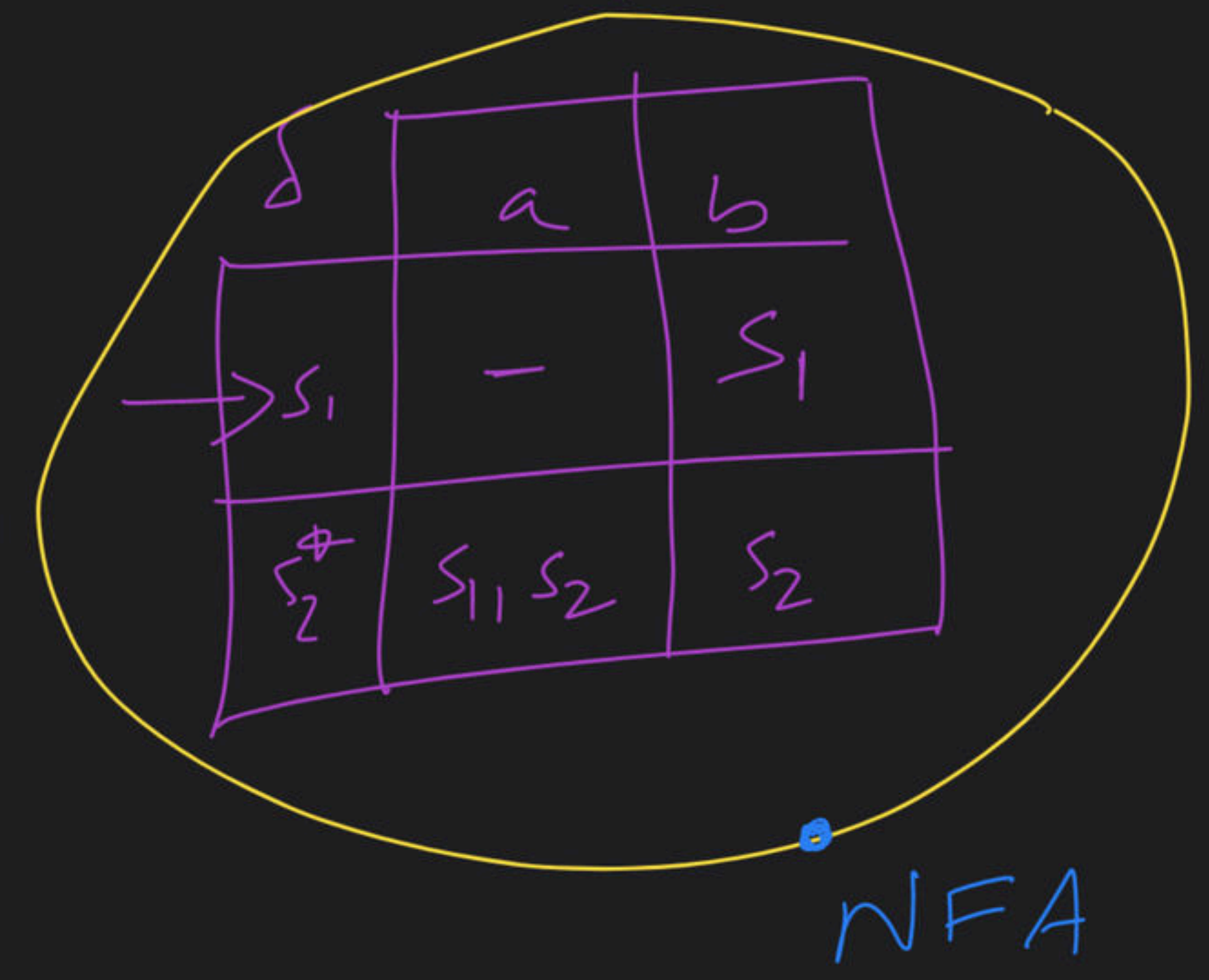
(or)



②



(or)

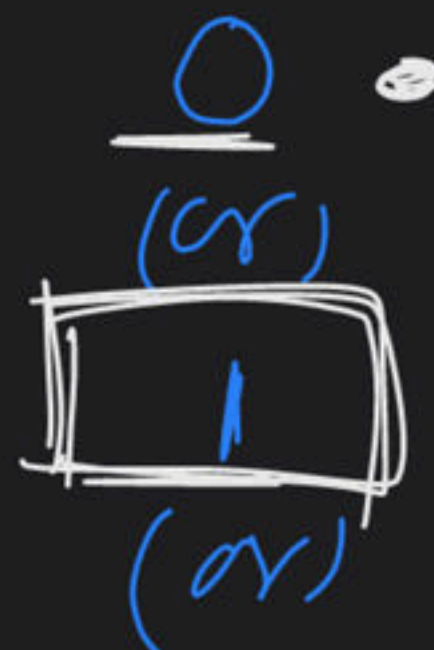


DFA

In the case of DFA
from each and every
state is for every i/p
symbol exactly one
transition.

NFA

In the case of NFA from
each and every state is
for every i/p symbol.

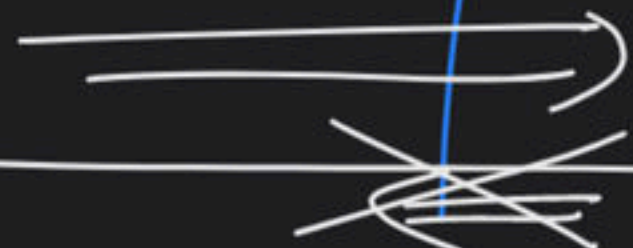


transition

more.

DFA

DFA



NFA ✓

NFA

every DFA is NFA but every NFA need not be
DFA



















