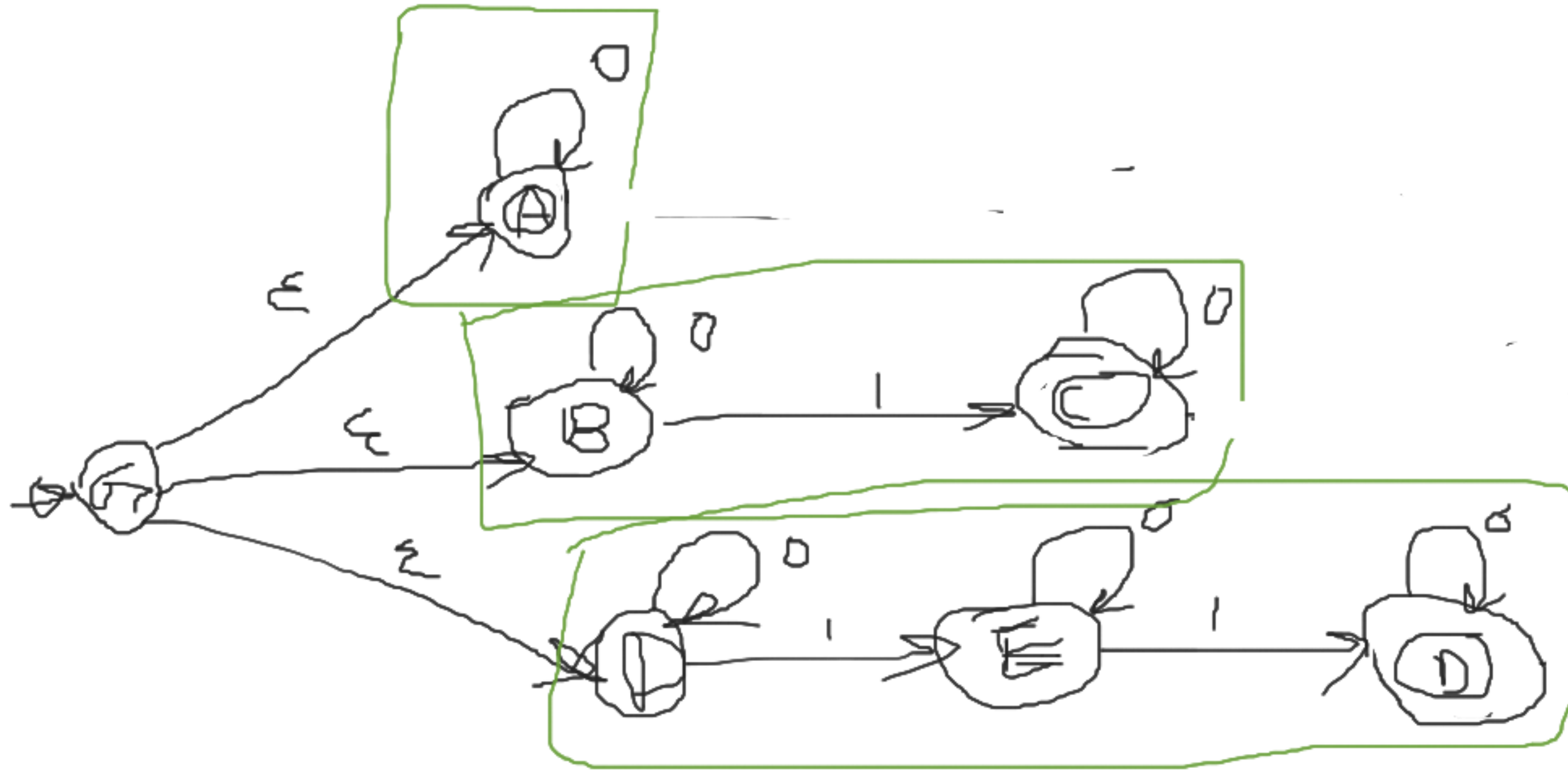


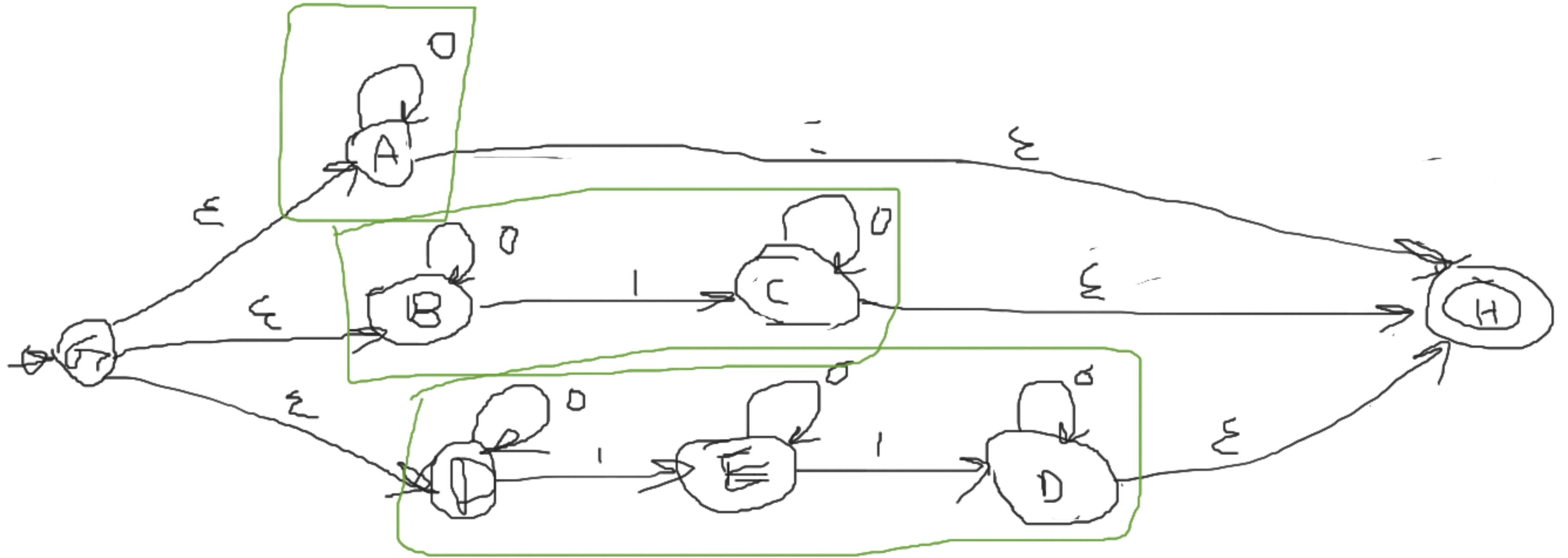
L = set of binary strings containing at most two 1s

RE =  $0^*/0^*10^*/0^*10^*10^*$

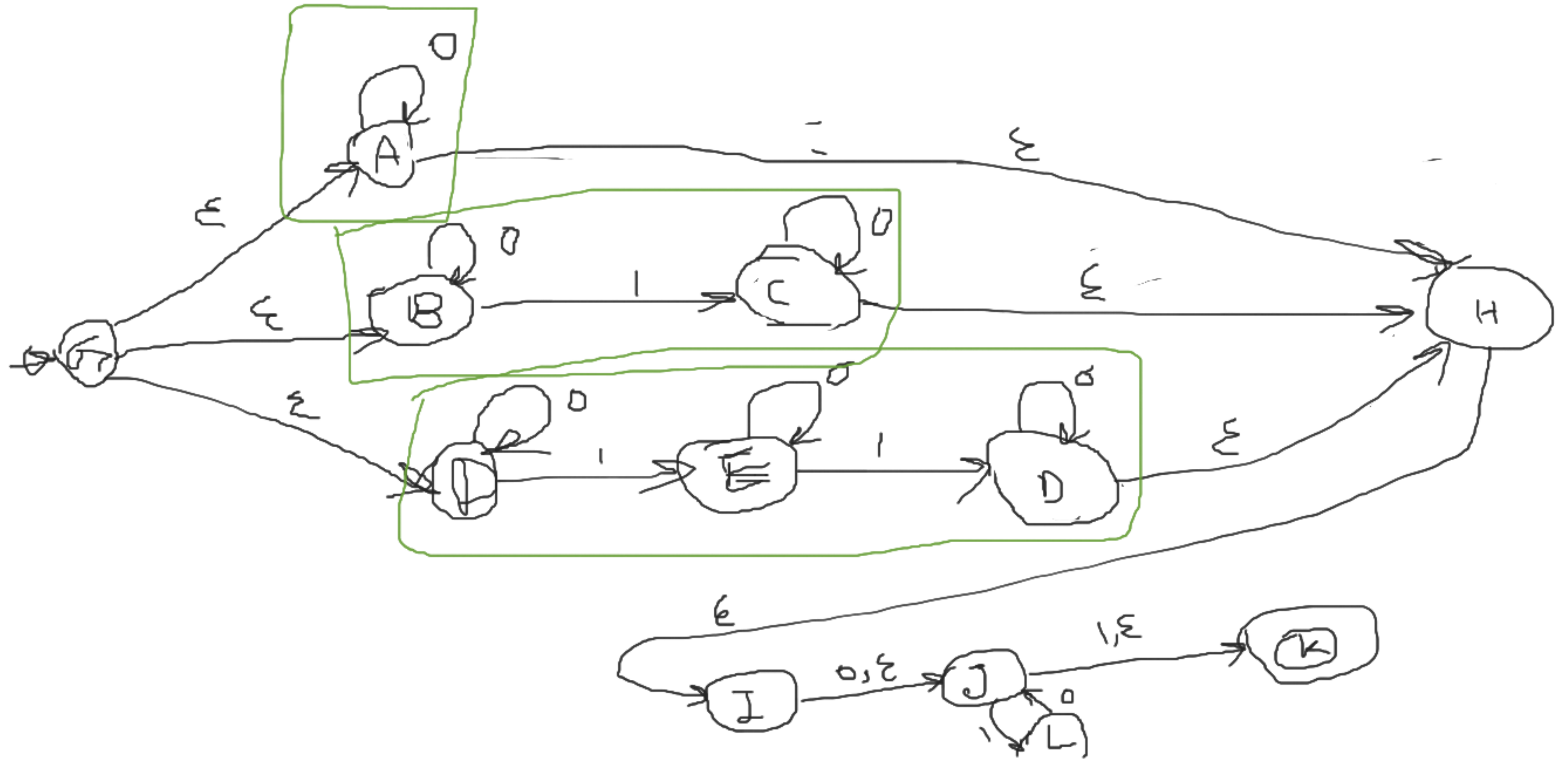


L = set of binary string containing at most two 1s

RE =  $0^*/0^*10^*/0^*10^*10^*$



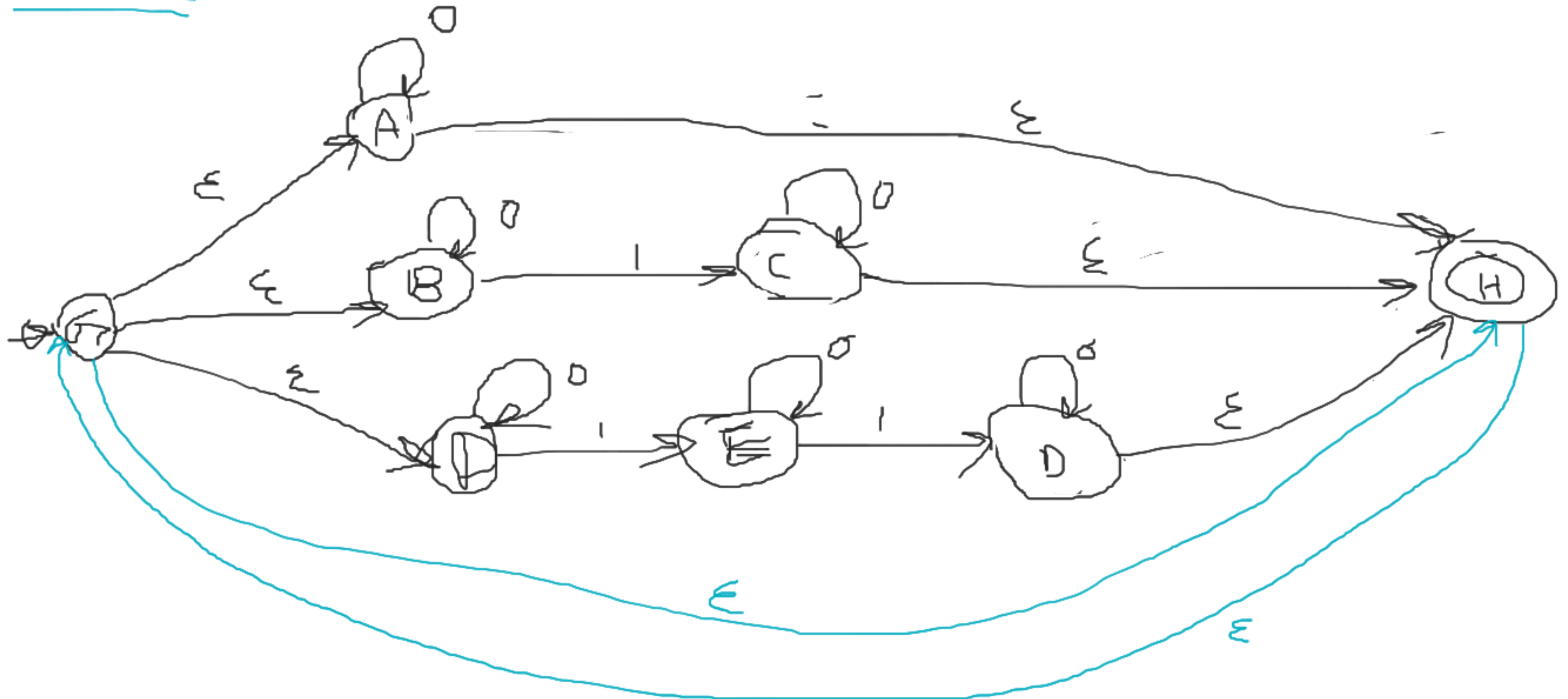
Design an eNFA for  $L_1L_2$  (using closure properties) where  $L_1$  = set of binary strings containing at most two 1s,  $L_2$  = set of binary strings which are alternating sequences of 0s and 1s.



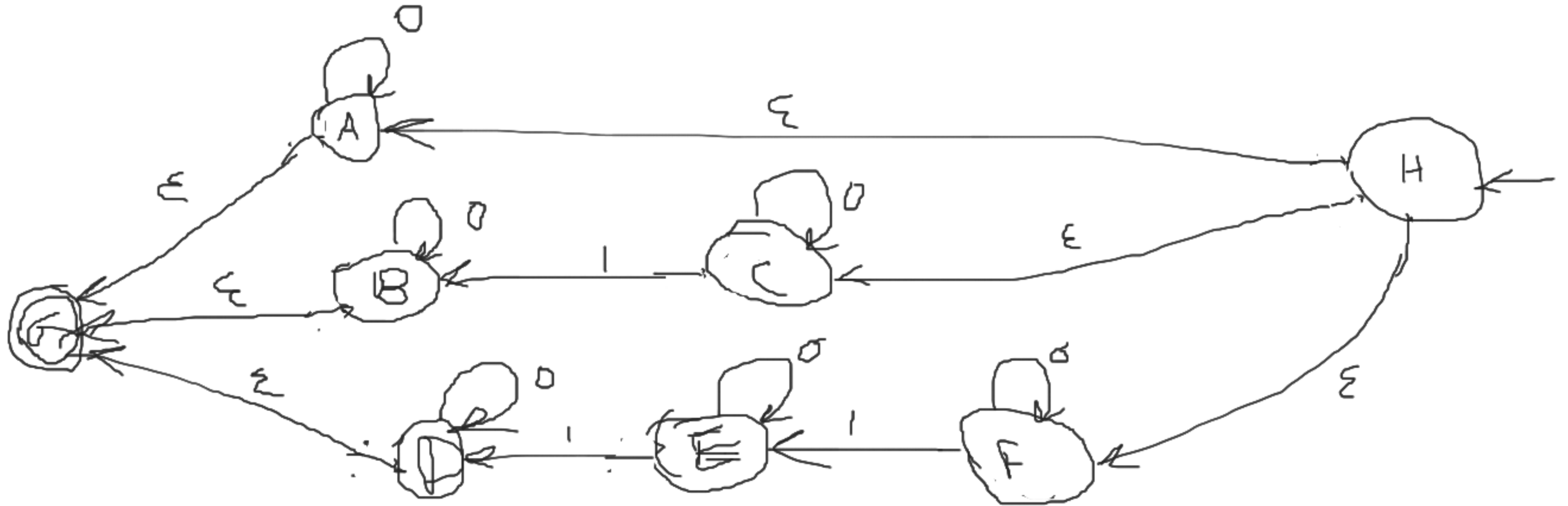
$L$  = set of binary string containing at most two 1s

$RE = 0^*/0^*10^*/0^*10^*10^*$

eNFA for  $L^*$ :



Design an eNFA for  $L^*R$  where  $L$  = set of binary strings which contain at most two 1s.

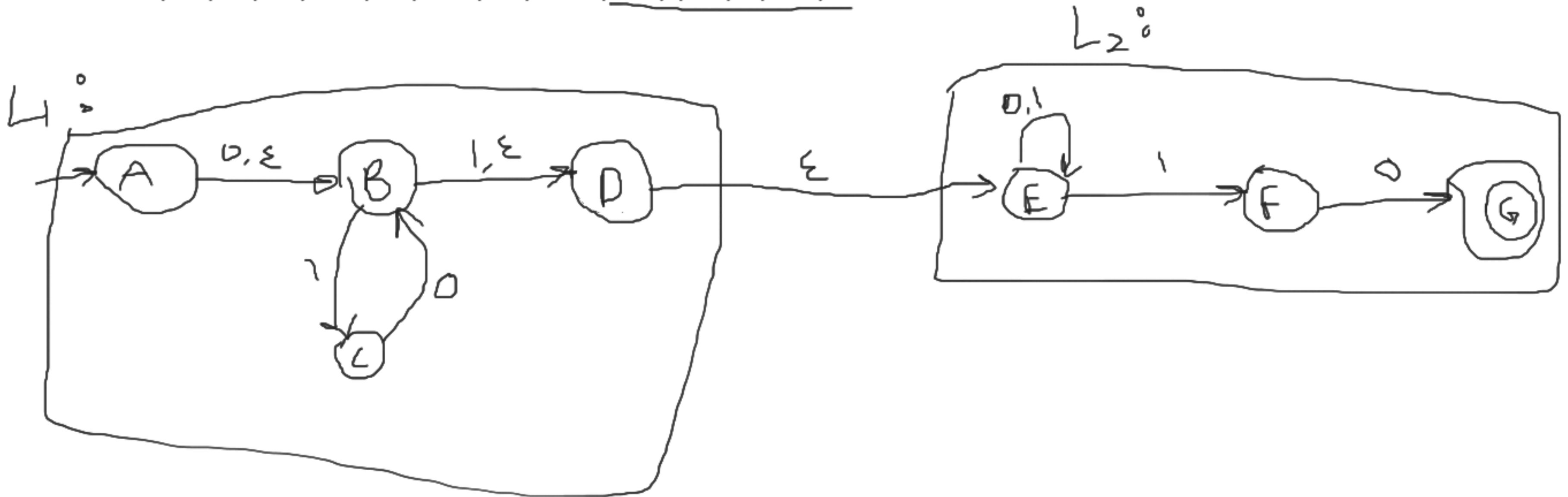


Design an eNFA for  $L1$  = set of binary strings which are alternating sequences of 0s and 1s.  
 Design another eNFA for  $L2$  = set of binary strings which end with 10.  
 Then design an eNFA for  $L1L2$ .

RE for  $L2 = (0/1)^*10$

$L1 = \{e, 0, 1, 10, 01, 101, 010, 1010, 0101, \dots\}$ .

RE =  $(10)^*/(01)^*/0(10)^*/1(01)^* = \underline{(0/e)(10)^*(1/e)}$

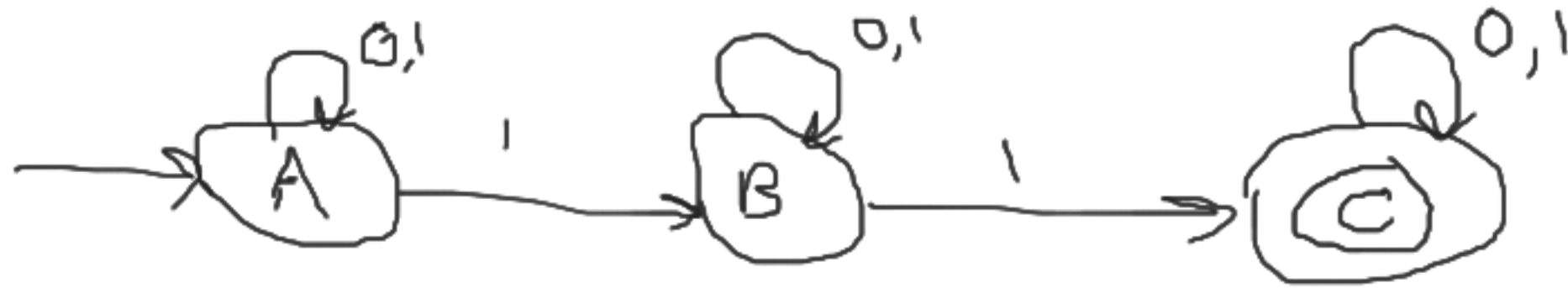




Design an eNFA for  $L^R$  where  $L$  is the set of binary strings which contain at least two 1s.

RE for  $L = (0/1)^*1(0/1)^*1(0/1)^*$

$\Rightarrow$  NFA:



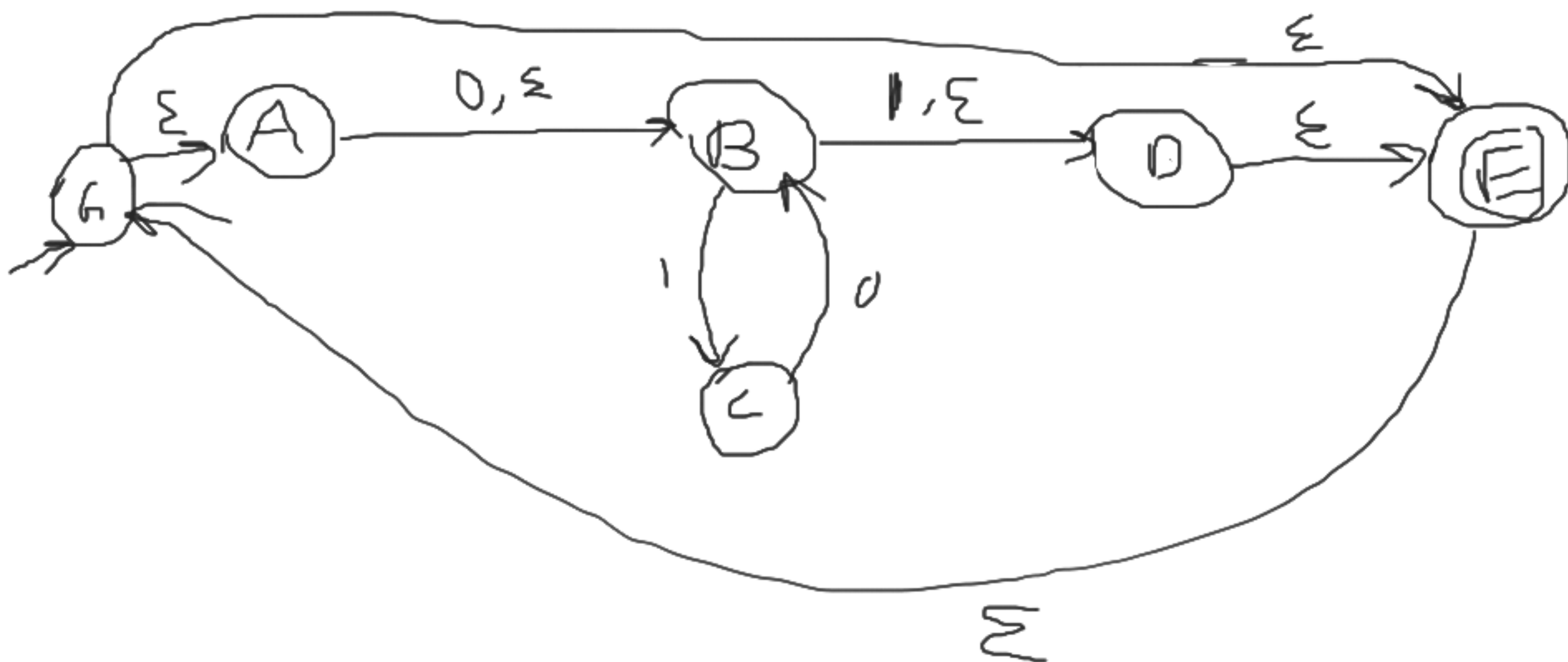
NFA for  $L^R$ :



Design an eNFA for  $L = \underline{\text{set of alternating sequence of 0s and 1s}}$ . Then use that to design an eNFA for  $L^*$

$$RE = \underline{(0/\epsilon)(10)^*(1/\epsilon)}$$

eNFA for  $L^*$ :





Design an eNFA for  $L = \underline{\text{set of alternating sequence of 0s and 1s}}$ . Then use that to design an eNFA for  $L^*R$

$$R = \underline{(0/\epsilon)(10)^*(1/\epsilon)}$$

eNFA for  $L^*R$ :

