

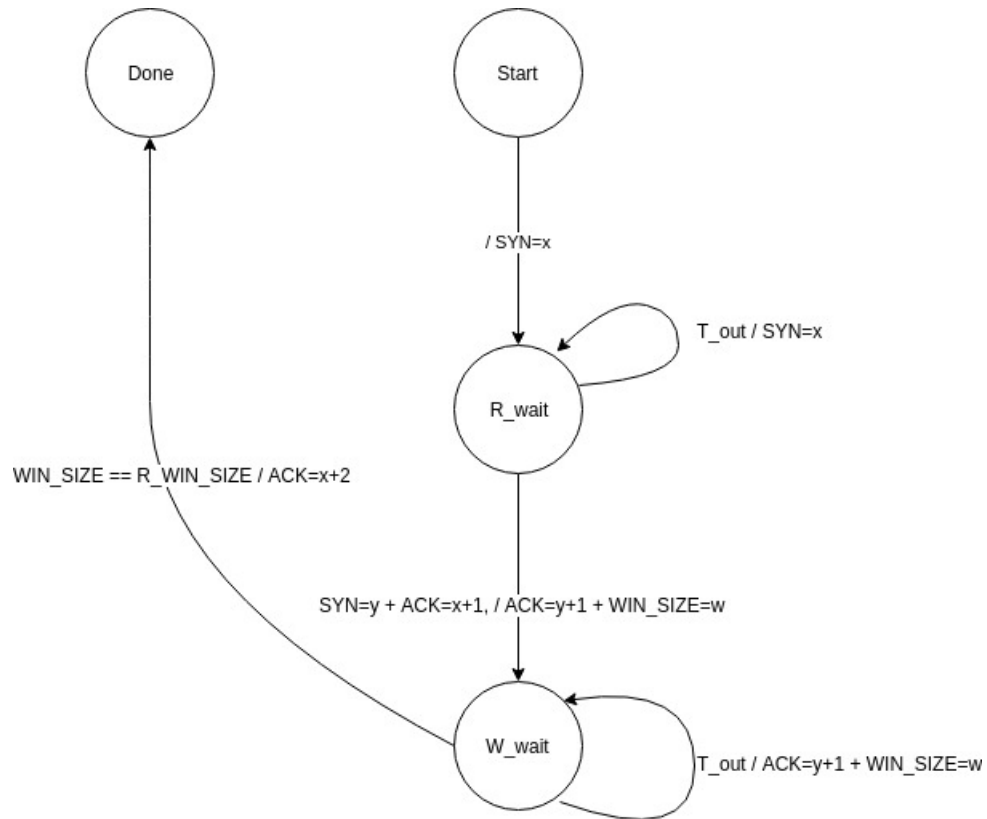
# Lab 3a Statemachines

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## 1 Three way handshake

### 1.1 Sender

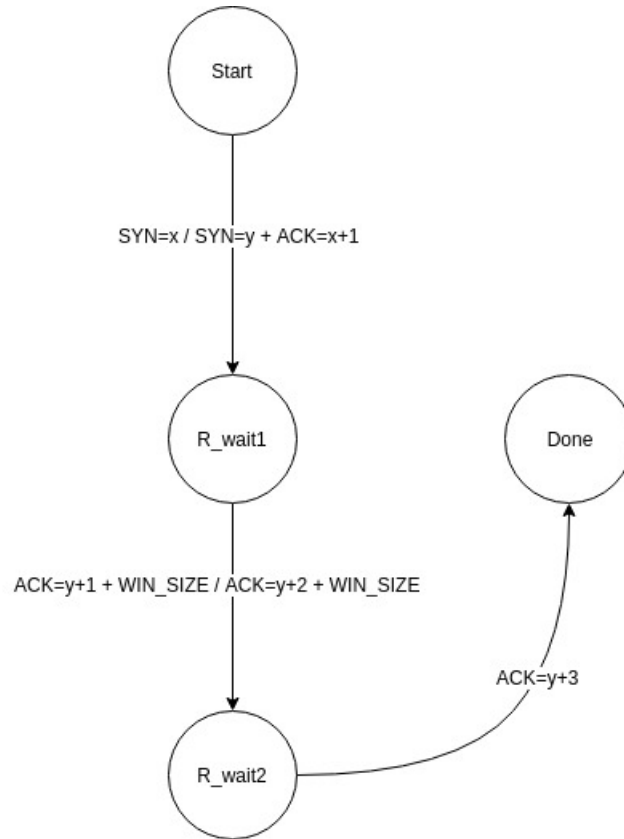


Inputs:  $\text{WIN\_SIZE} == \text{R\_WIN\_SIZE}$ ,  $\text{Con\_R}$ ,  $T_{\text{out}}$ ,  $!(\text{SYN} + \text{ACK}=x+1)$

Outputs:  $\text{ACK}=x+2$ ,  $\text{SYN}=x$ ,  $\text{ACK}=y+1 + \text{WIN\_SIZE}=w$ ,  $\text{ACK}=y+1 + \text{WIN\_SIZE}=w$

States: **Start**, **R\_wait**, **W\_wait**, **Done**

## 1.2 Reciever



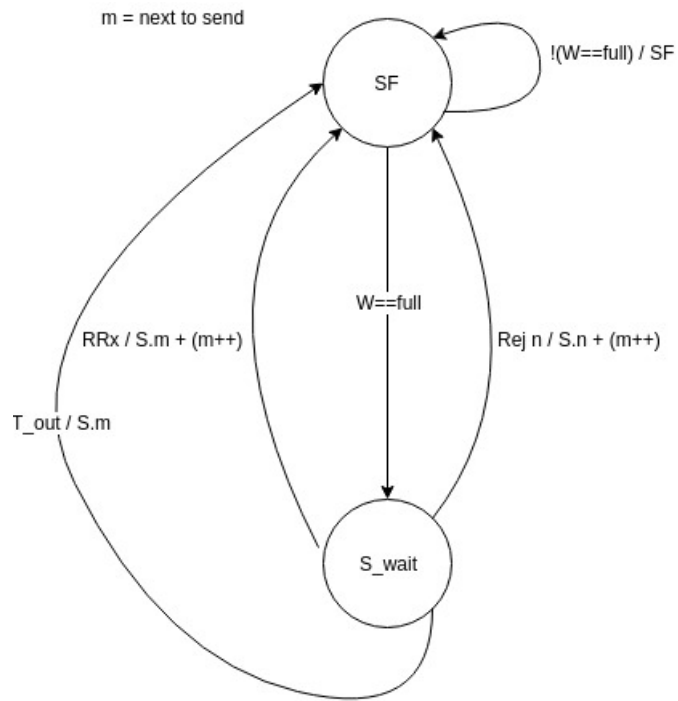
Inputs:  $\text{SYN}=x$ ,  $\text{ACK}=y+1 + \text{WIN\_SIZE}$ ,  $\text{ACK}=y+3$

Outputs:  $\text{SYN}=y + \text{ACK}=x+1$ ,  $\text{ACK}=y+2 + \text{WIN\_SIZE}$

States: Start, R\_wait1, R\_wait2, Done

## 2 Sliding window

### 2.1 Sender

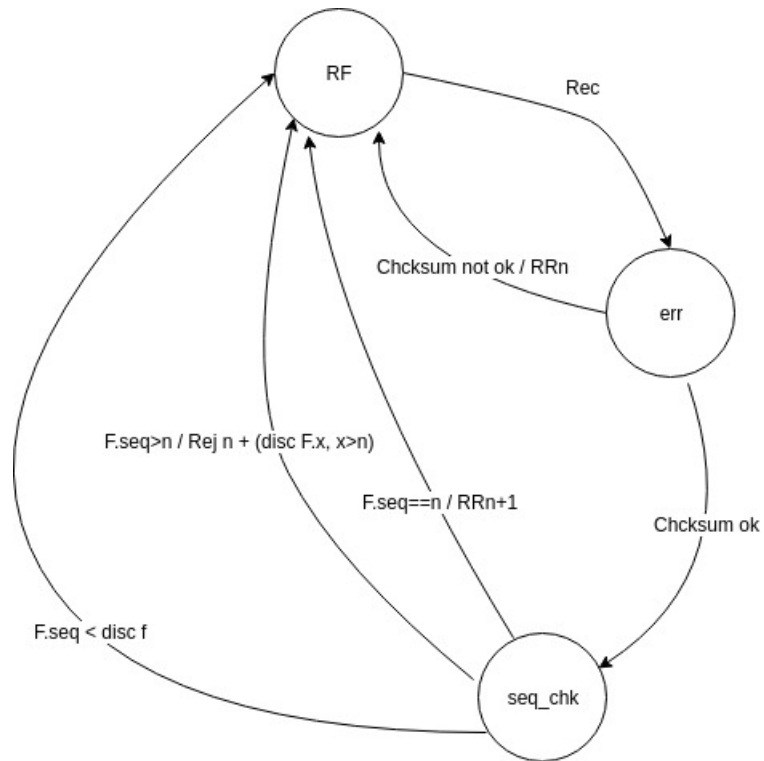


Inputs:  $!(W==full)$ , RRx, Rej n, T\_out

Outputs: SF, S.m + (m++), S.n + (m++), S.m

States: SF, S\_wait

## 2.2 Reciever



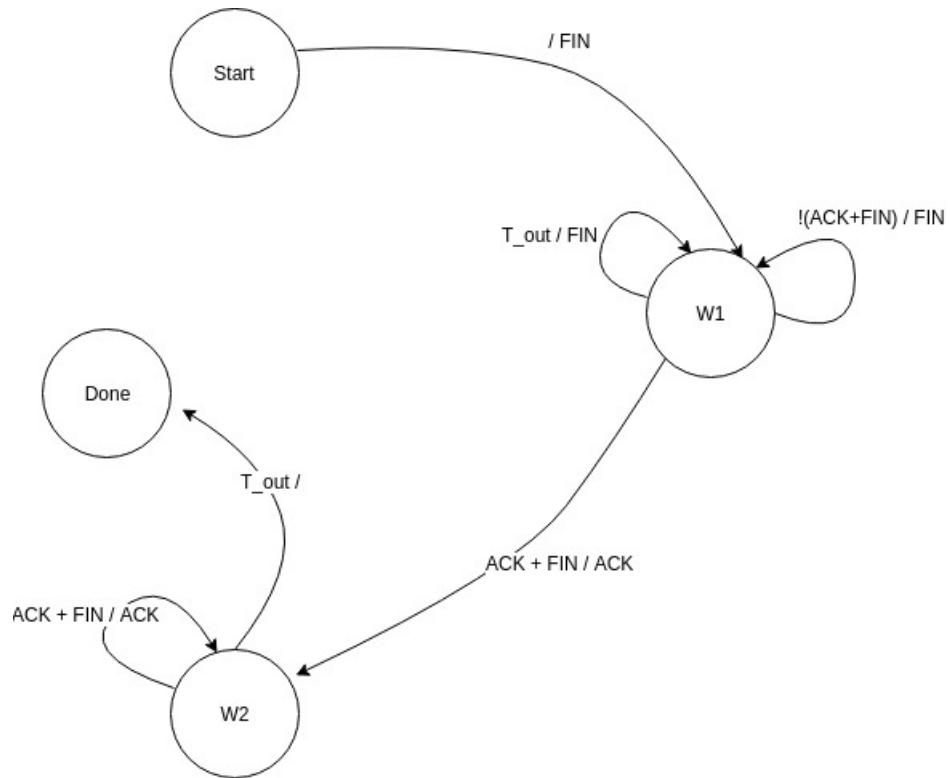
Inputs: Rec, Chcksum not ok, Chcksum ok, F.seq, F.seq > n, F.seq < disc f

Outputs: RRn, RRn+1, Rej n + (disc F.x, x > n)

States: RF, err, seq\_chk

### 3 Teardown

#### 3.1 Sender

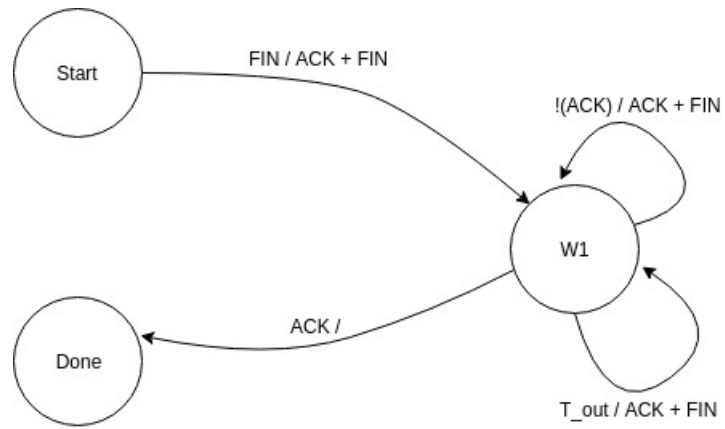


Inputs: fin\_req, !(ACK), T\_out, ACK, !(FIN), FIN

Outputs: FIN, ACK

States: Start, W1, W2, Done

### 3.2 Reciever



Inputs: FIN, !(ACK), ACK, T\_out  
Outputs: ACK + FIN  
States: Start, W1, Done