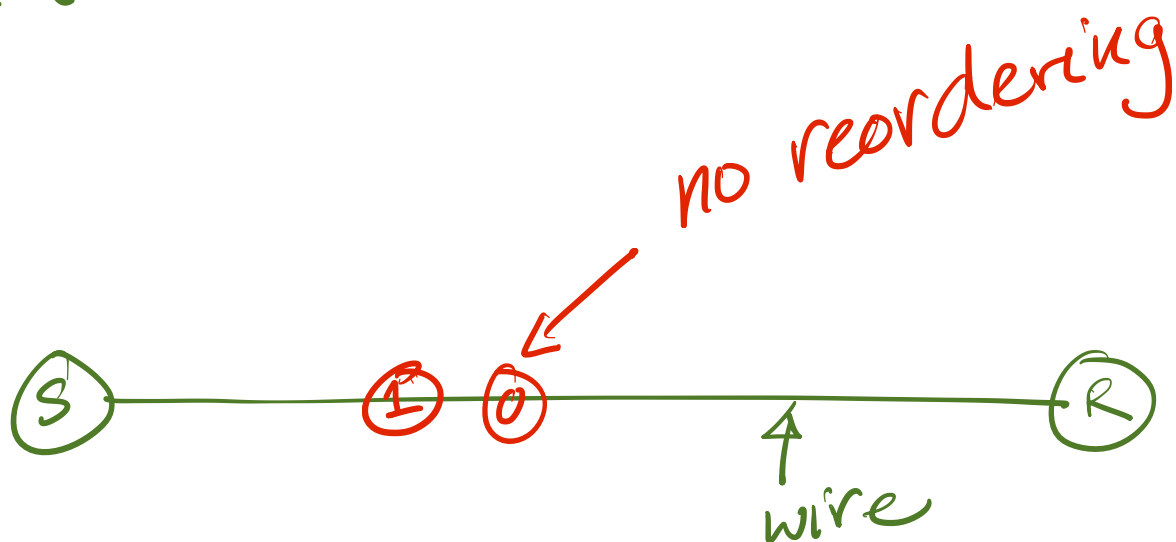


417

- Reliable  
Transmission

- ARQ  
protocols

Model



- packets sent are  
either received correctly

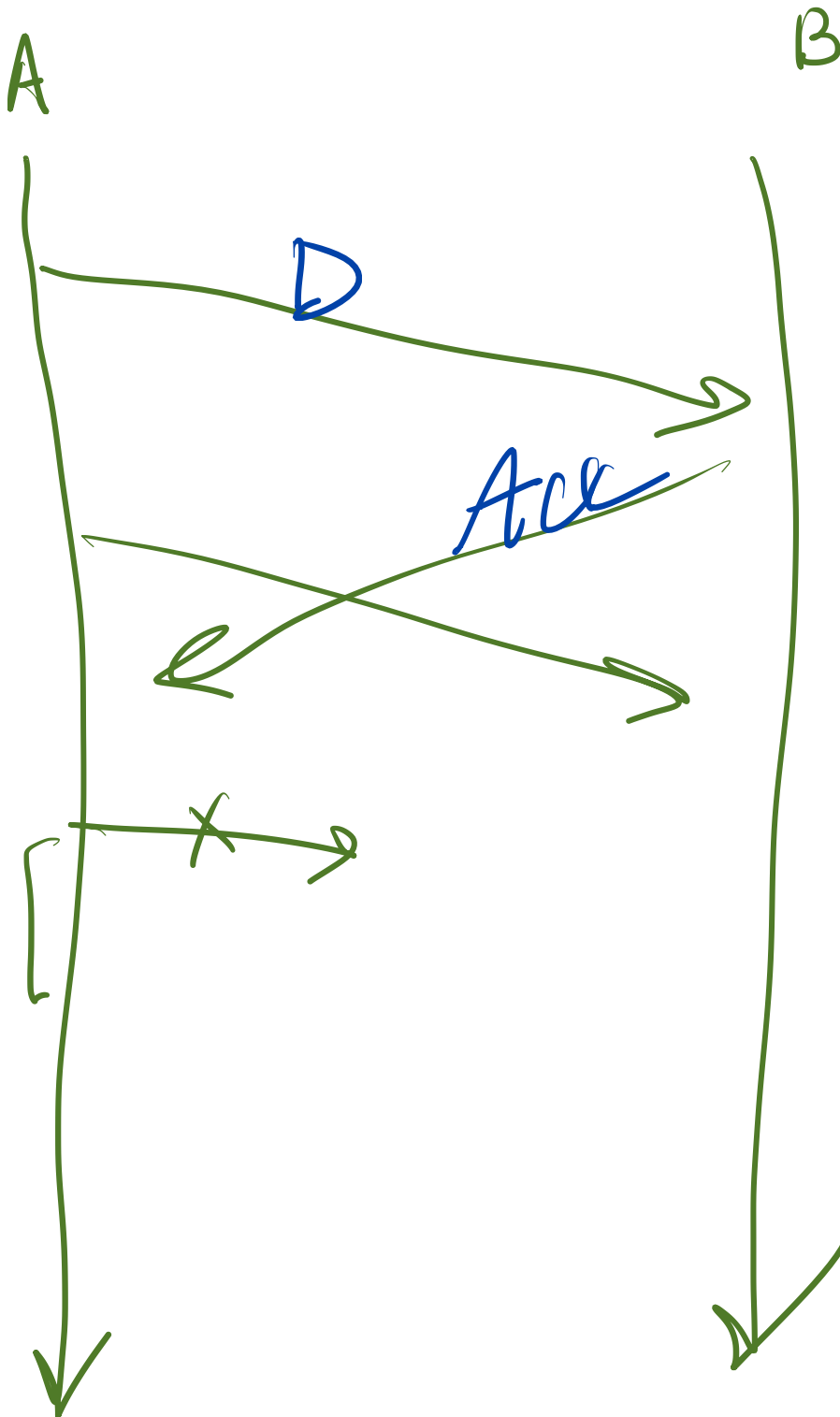
or not at all

Error  
Detection

# Two classes of protocols

- FEC : Forward Error Correction
- ARQ : Automatic Repeat Request

# Waterfall Diagram



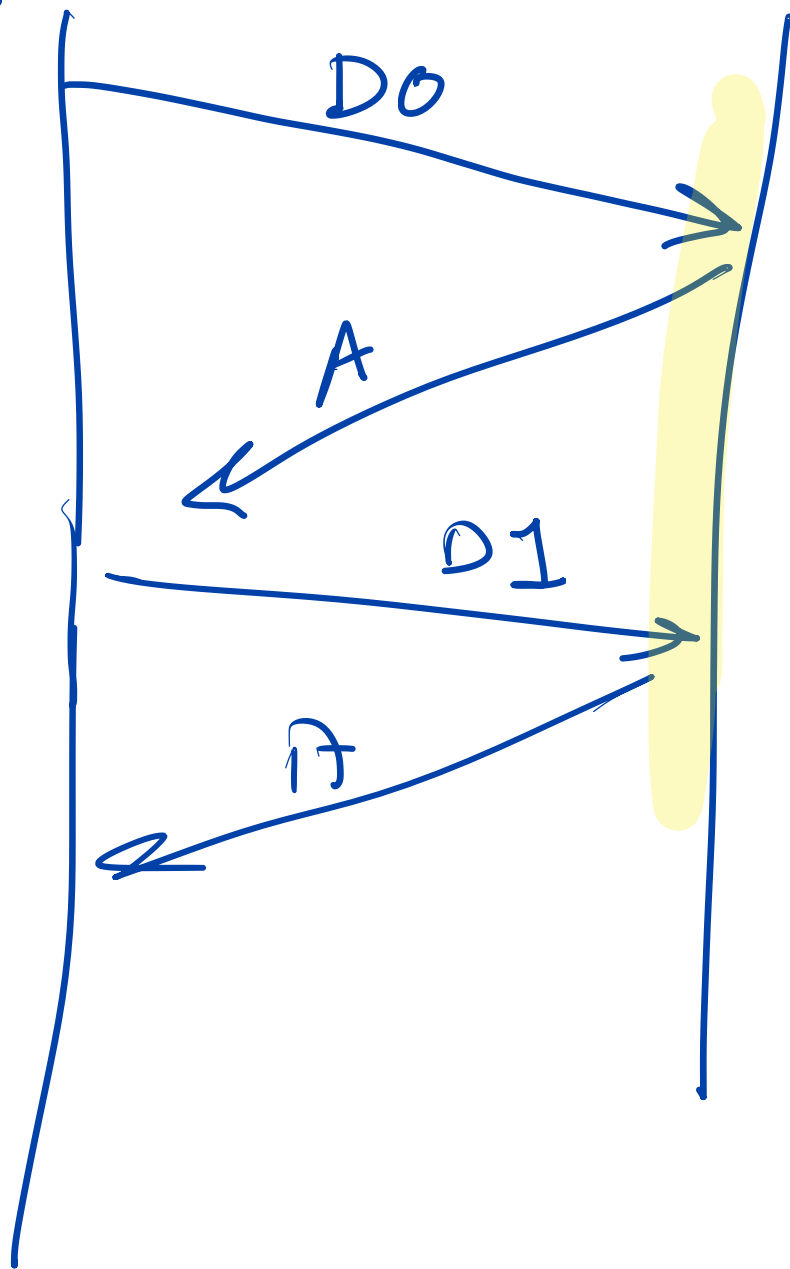
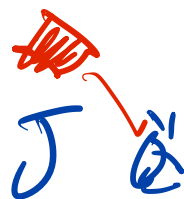
# Mechanisms

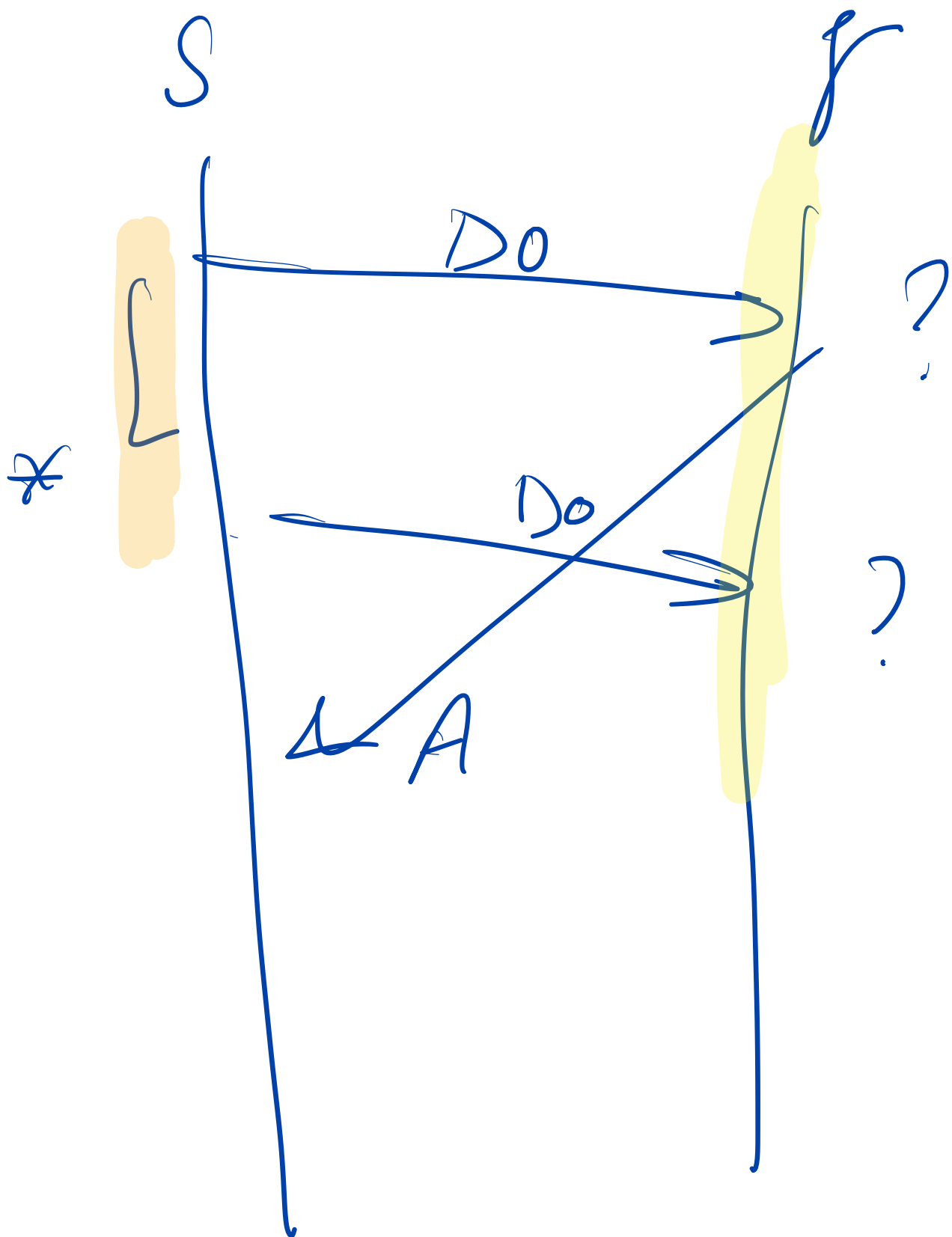
- acknowledgement

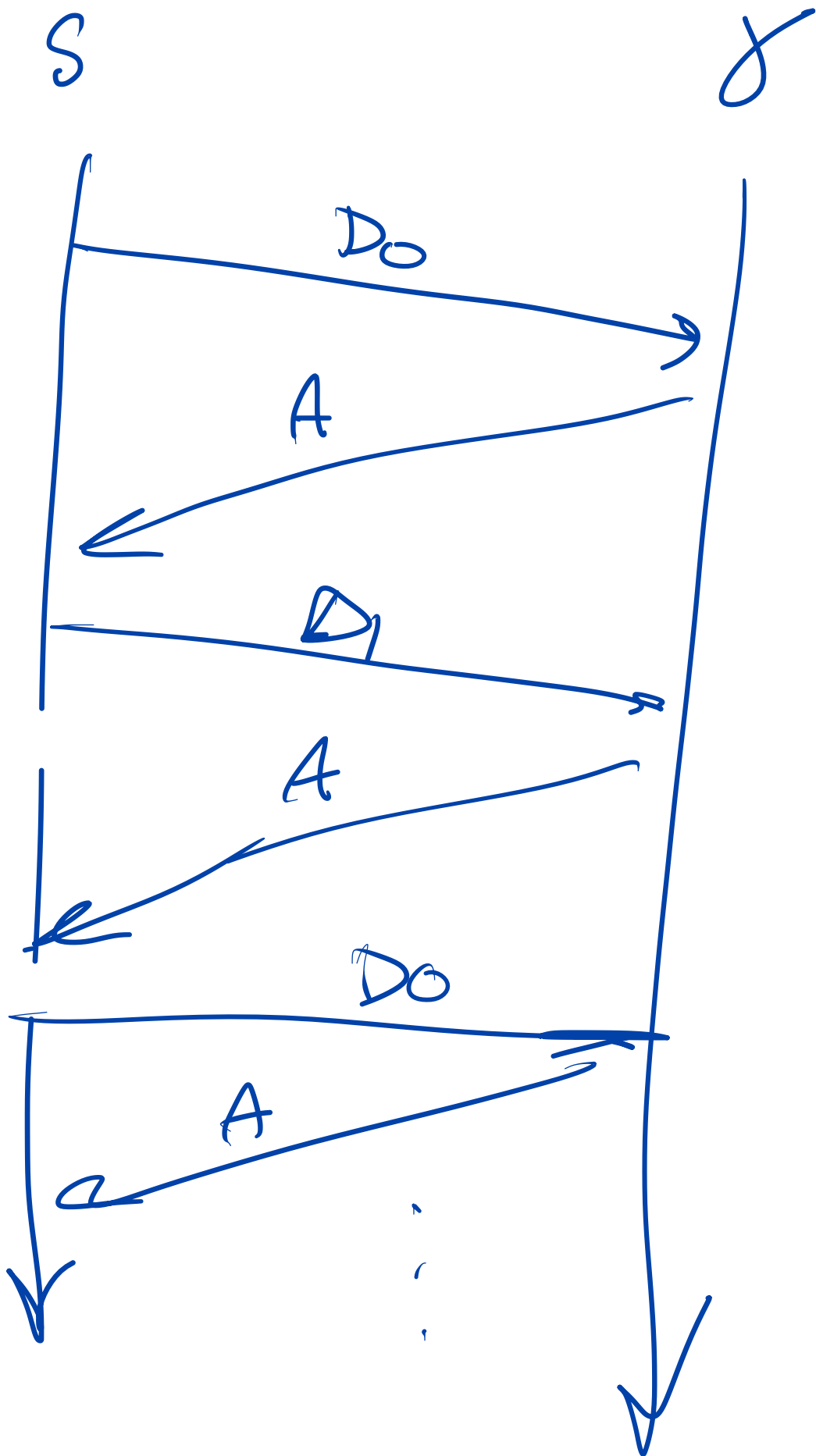
ACK →

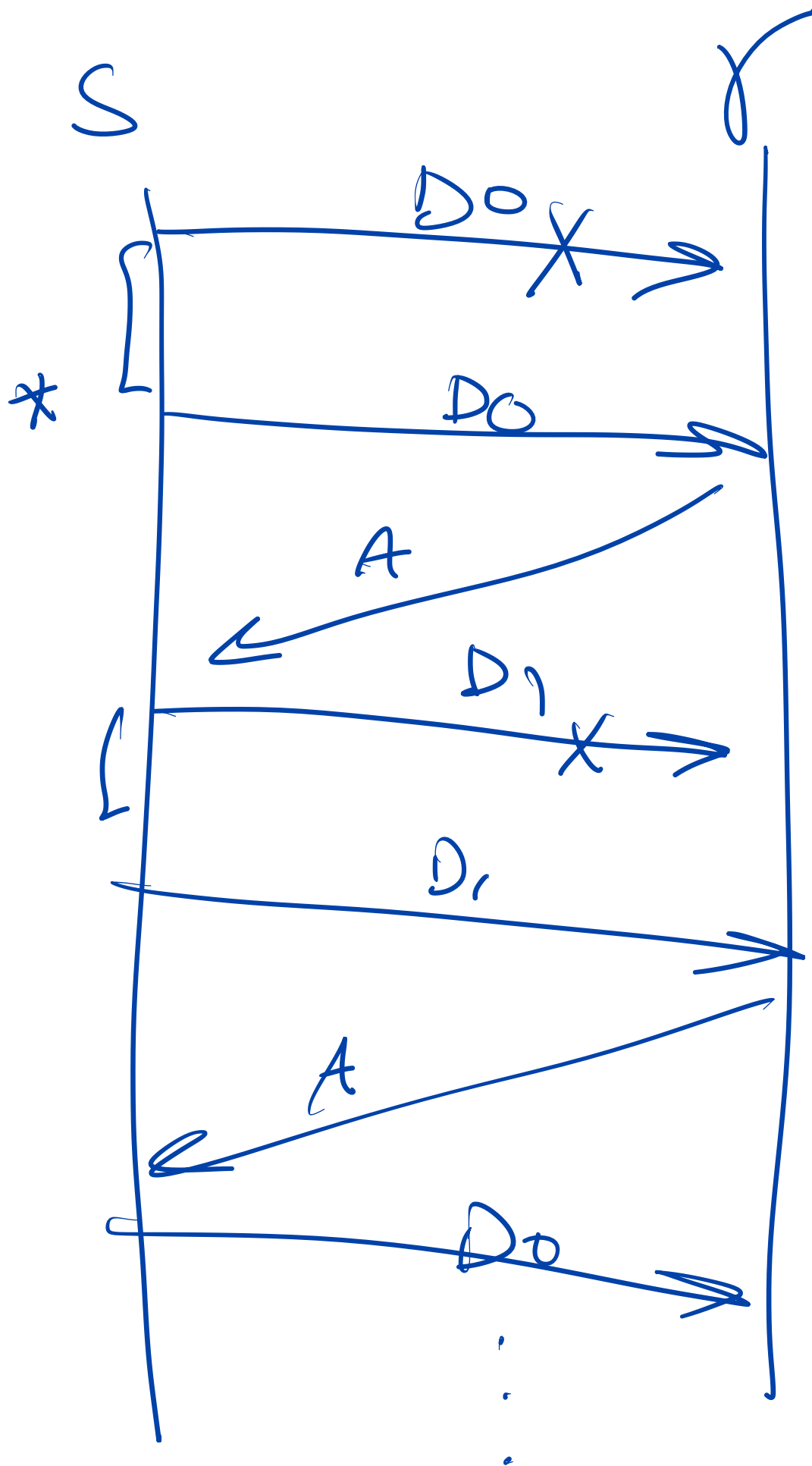
- seq #

- Timeout











S

$\gamma$

$D_0$

$x$

$A \times$

$D_0$

A

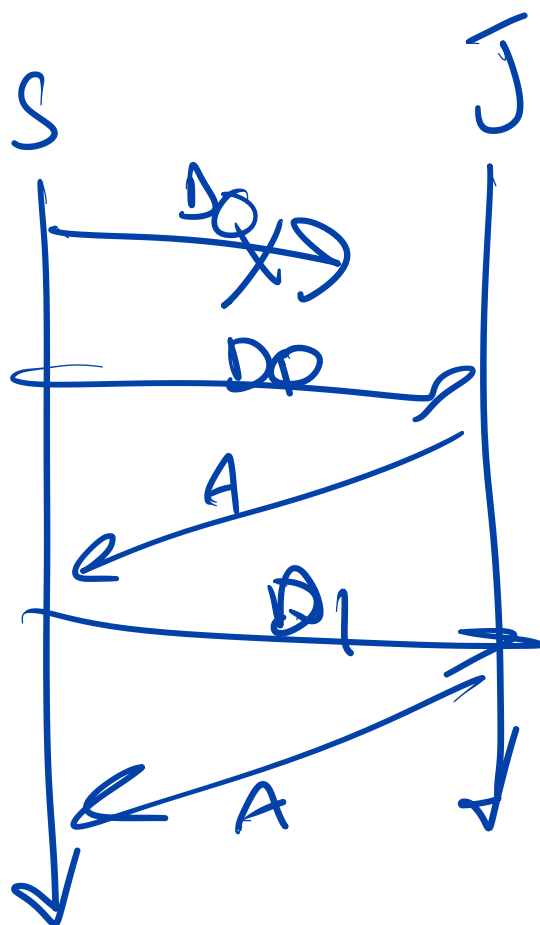
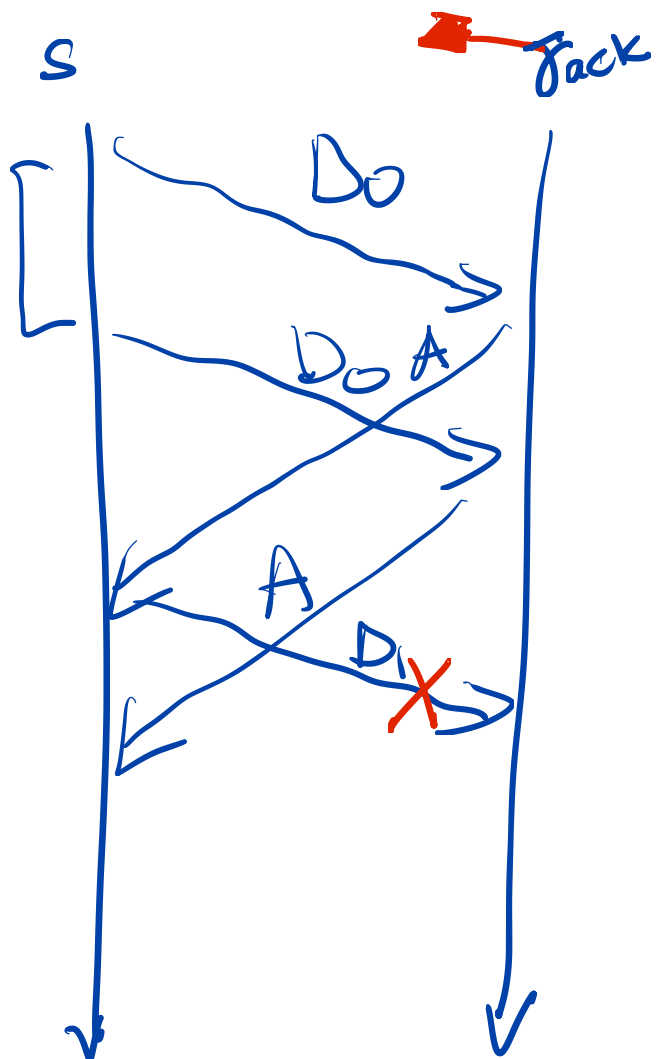
$D_1 \times$

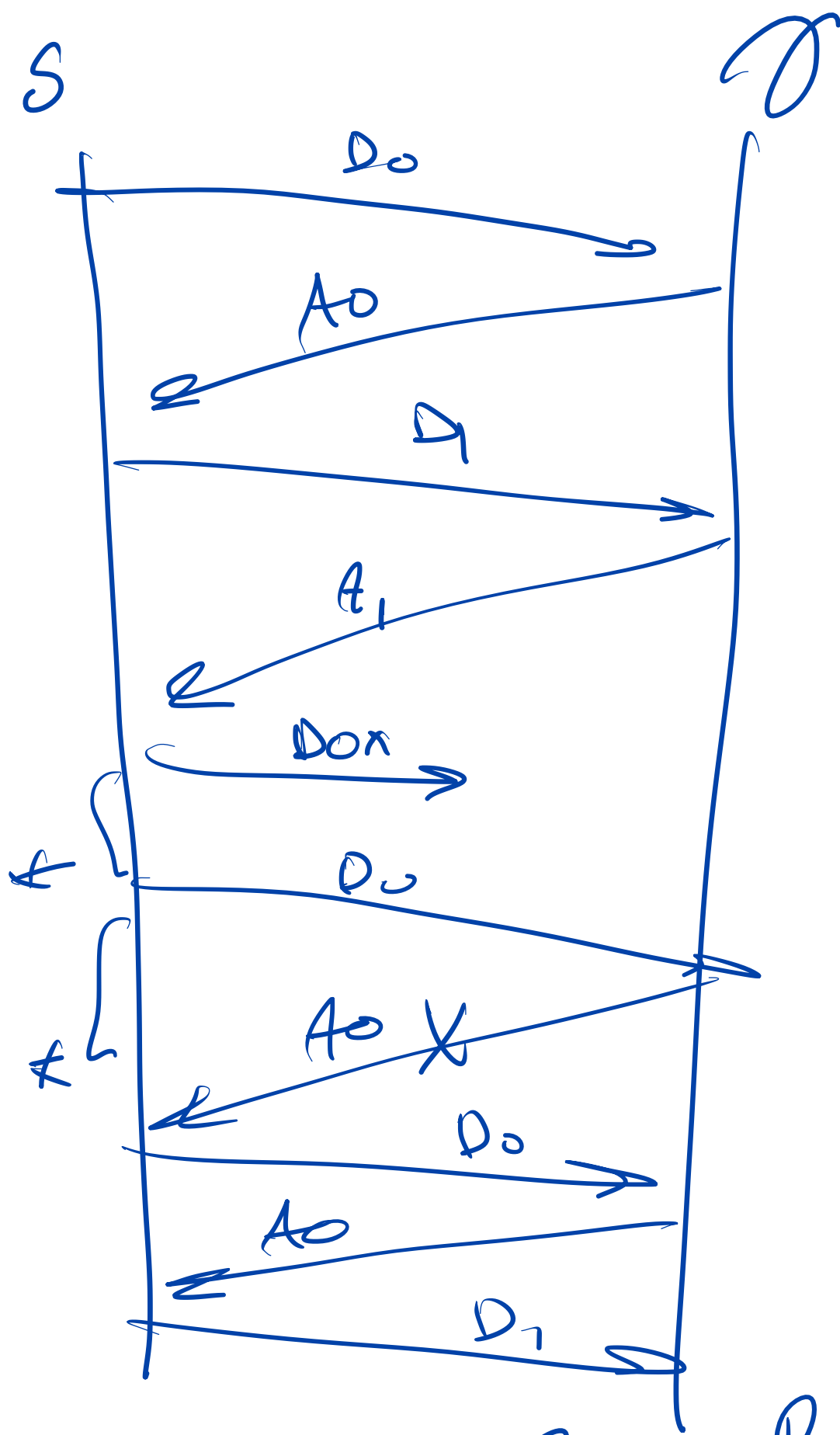
$x$

$D_1$

A

$D_0$

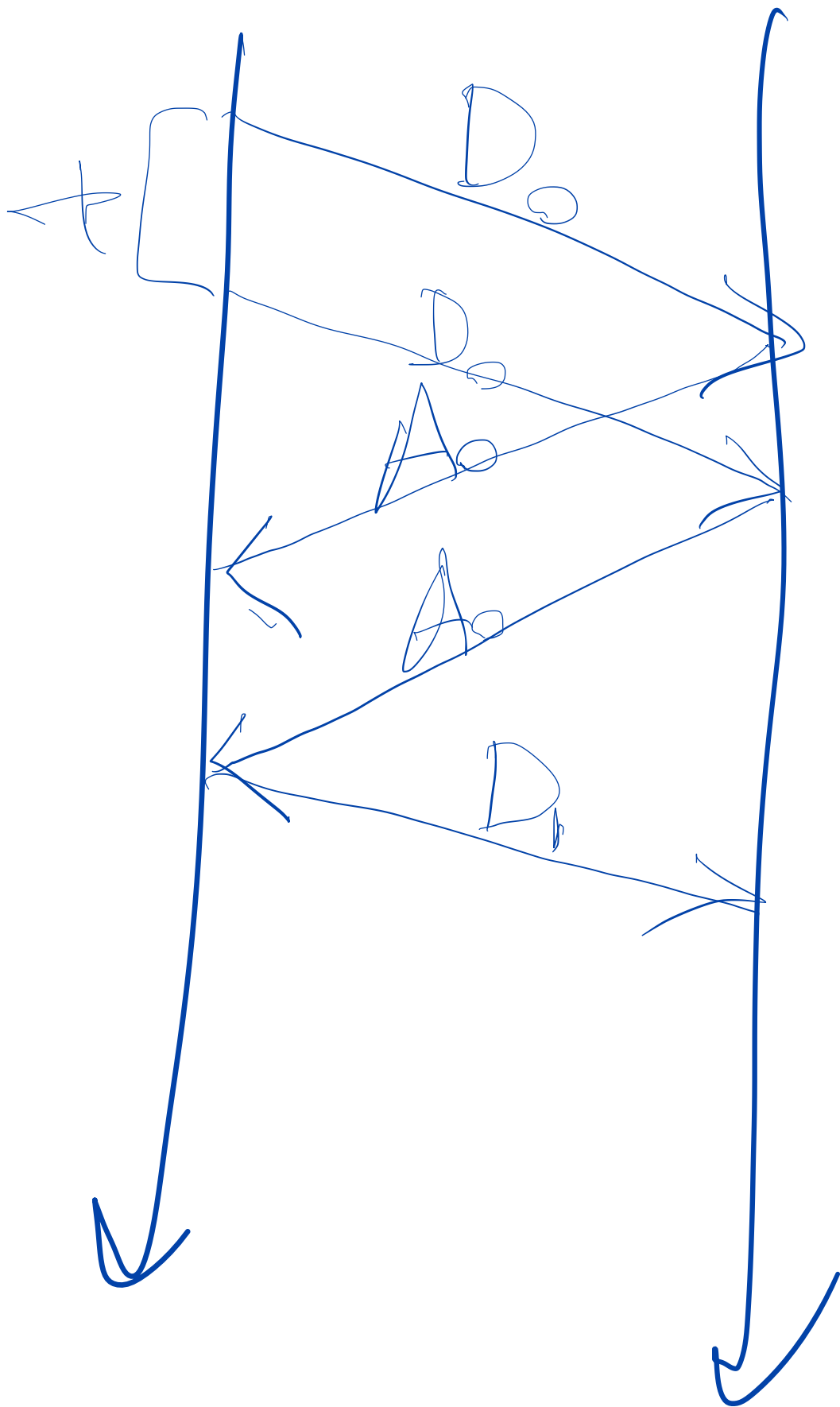




Alternating Bit Protocol

S

$\sigma$



S

$\gamma$

