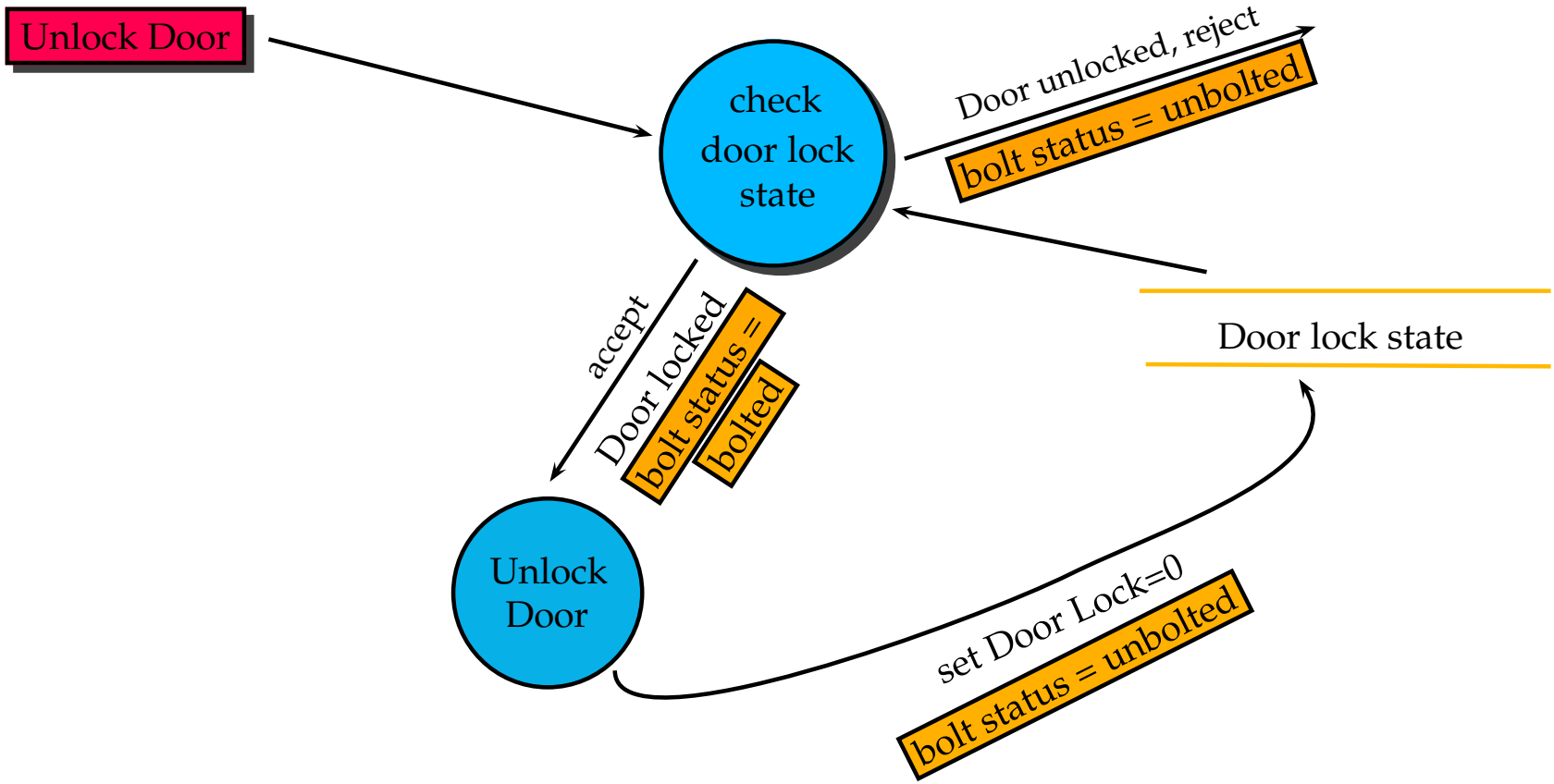
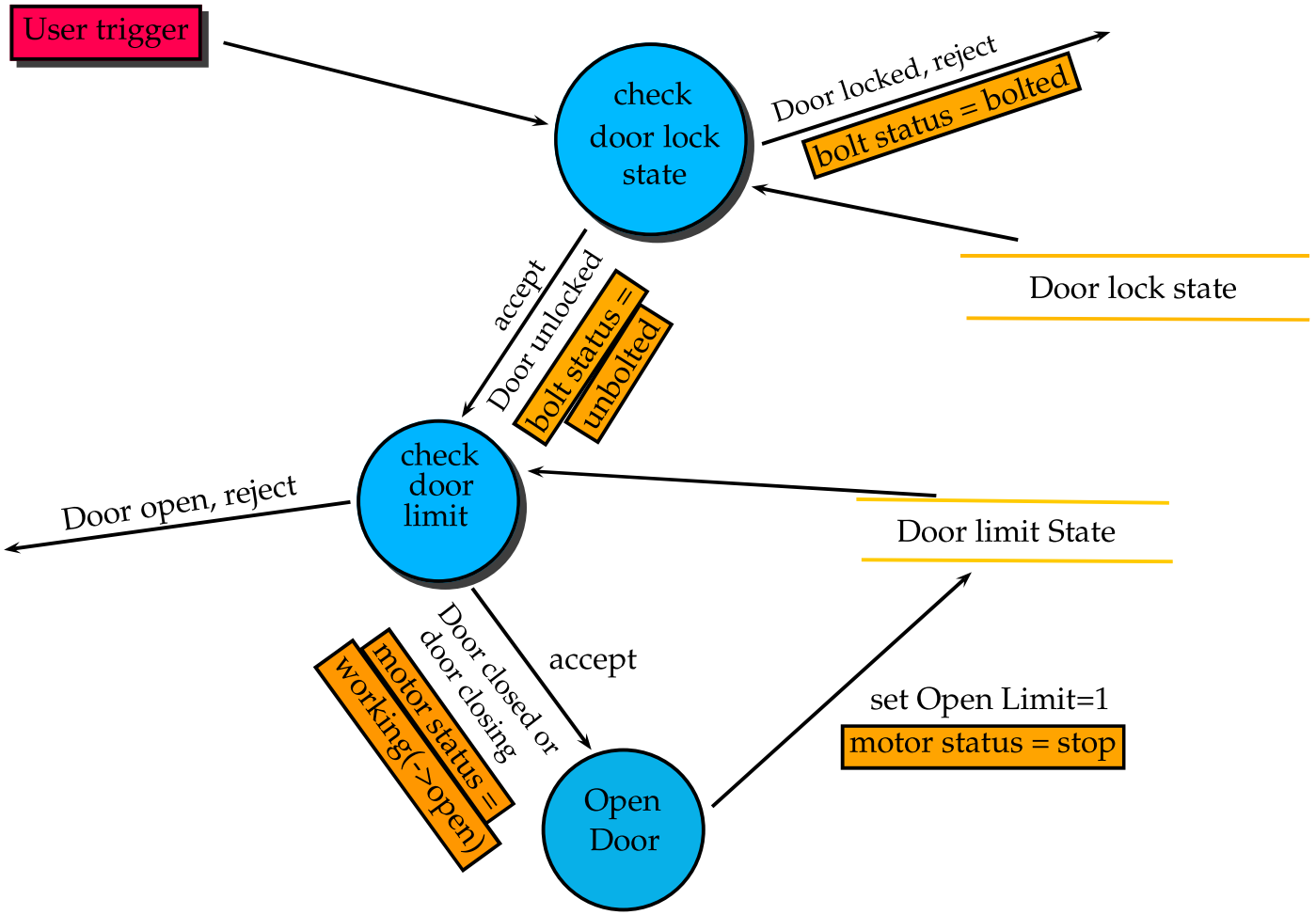
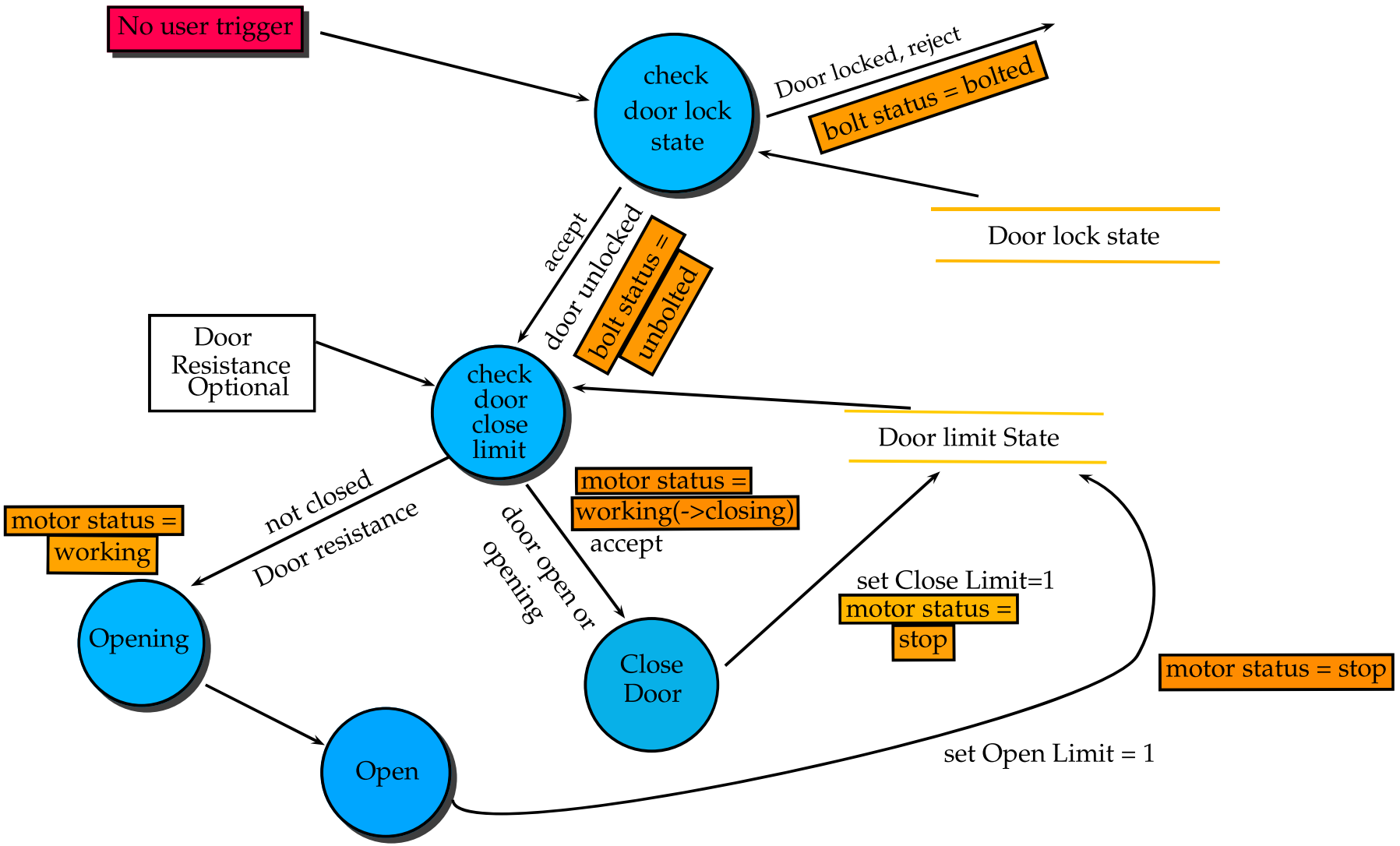
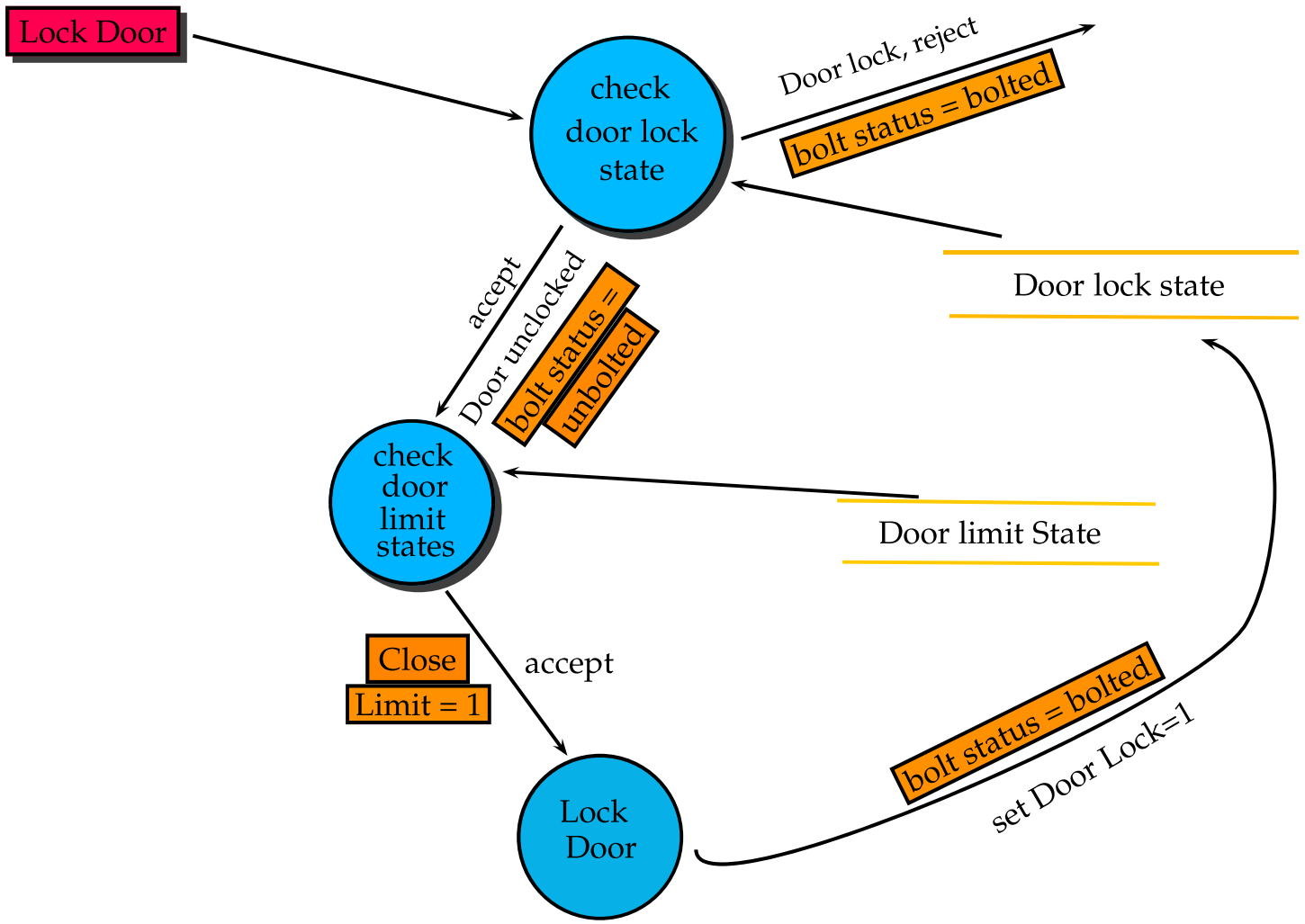
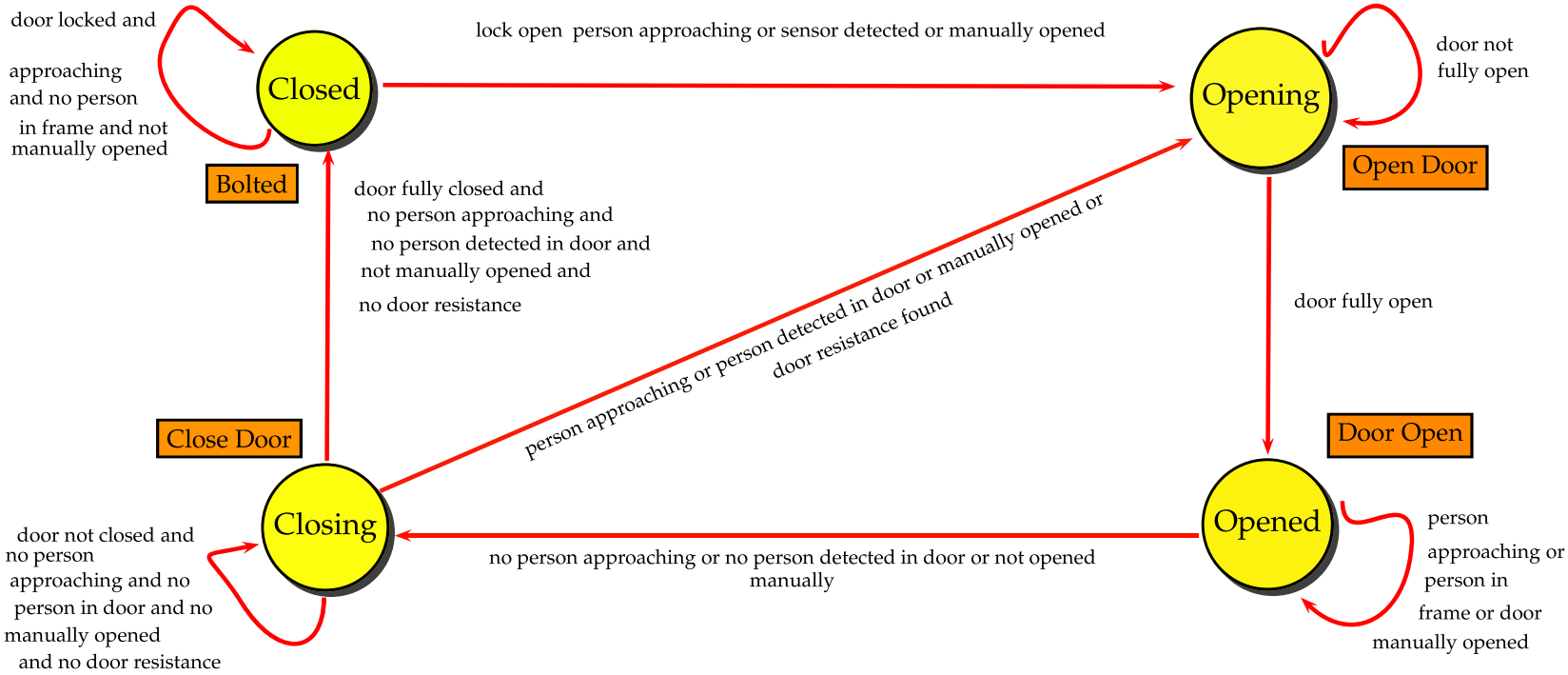
DataFlow Diagram For
Automatic Door Controller




User trigger
check door lock state
Door locked, reject
bolt status = bolted
Door lock state
accept
Door unlocked
bolt status = unbolted
check door limit
Door open, reject
Door limit State
Door closed or door closing
motor status = working(->open)
accept
Open Door
set Open Limit=1
motor status = stop


No user trigger
check door lock state
Door locked, reject
bolt status = bolted
Door lock state
accept
door unlocked
bolt status = unbolted
Door Resistance Optional
check door close limit
Door limit State
motor status = working(->closing)
accept
not closed
Door resistance
motor status = working
door open or opening
Opening
Close Door
set Close Limit=1
motor status = stop
motor status = stop
Open
set Open Limit = 1


Lock Door
check door lock state
Door lock, reject
bolt status = bolted
accept
Door unclocked
bolt status = unbolted
Door lock state
check door limit states
Door limit State
Close
Limit = 1
accept
Lock Door
bolt status = bolted
set Door Lock=1

State Diagram for Automatic Door Controller