Watchdog State Machine

Version 1.0

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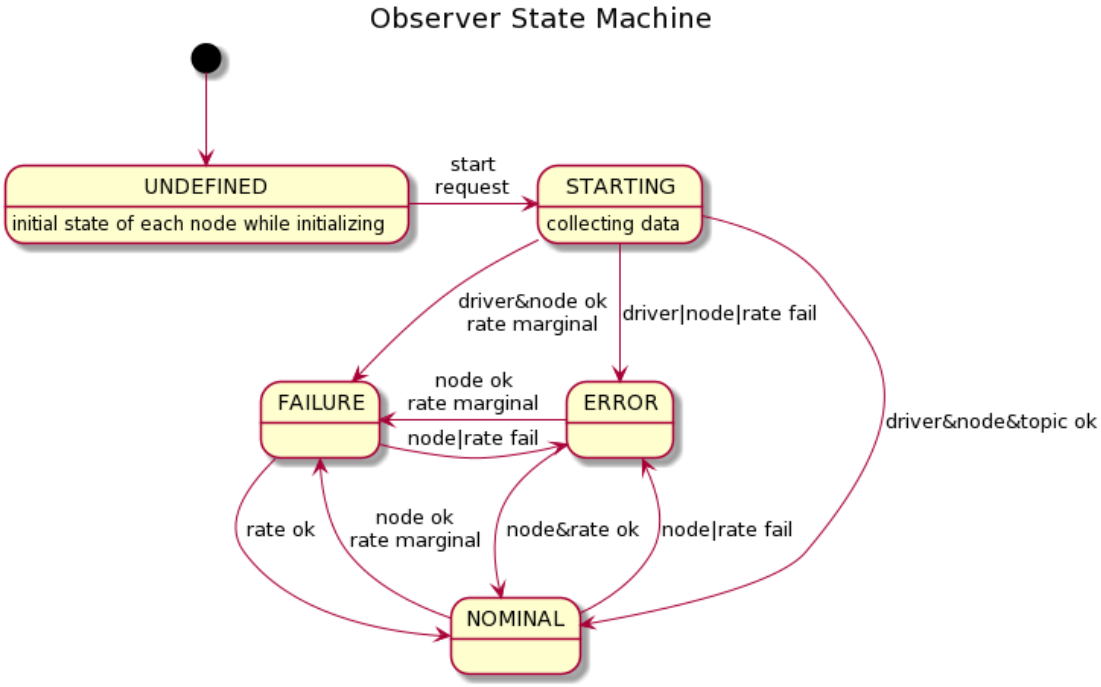
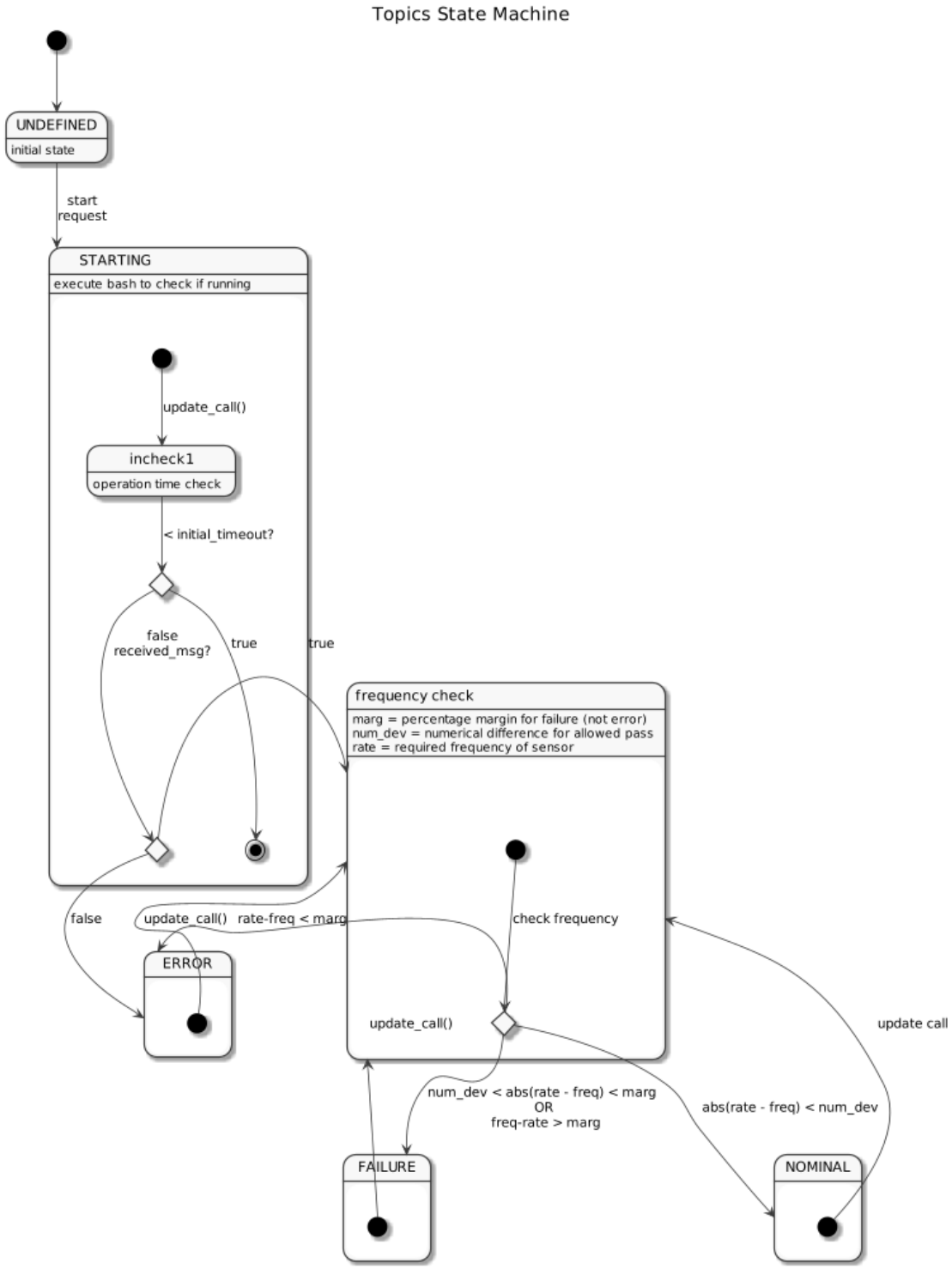
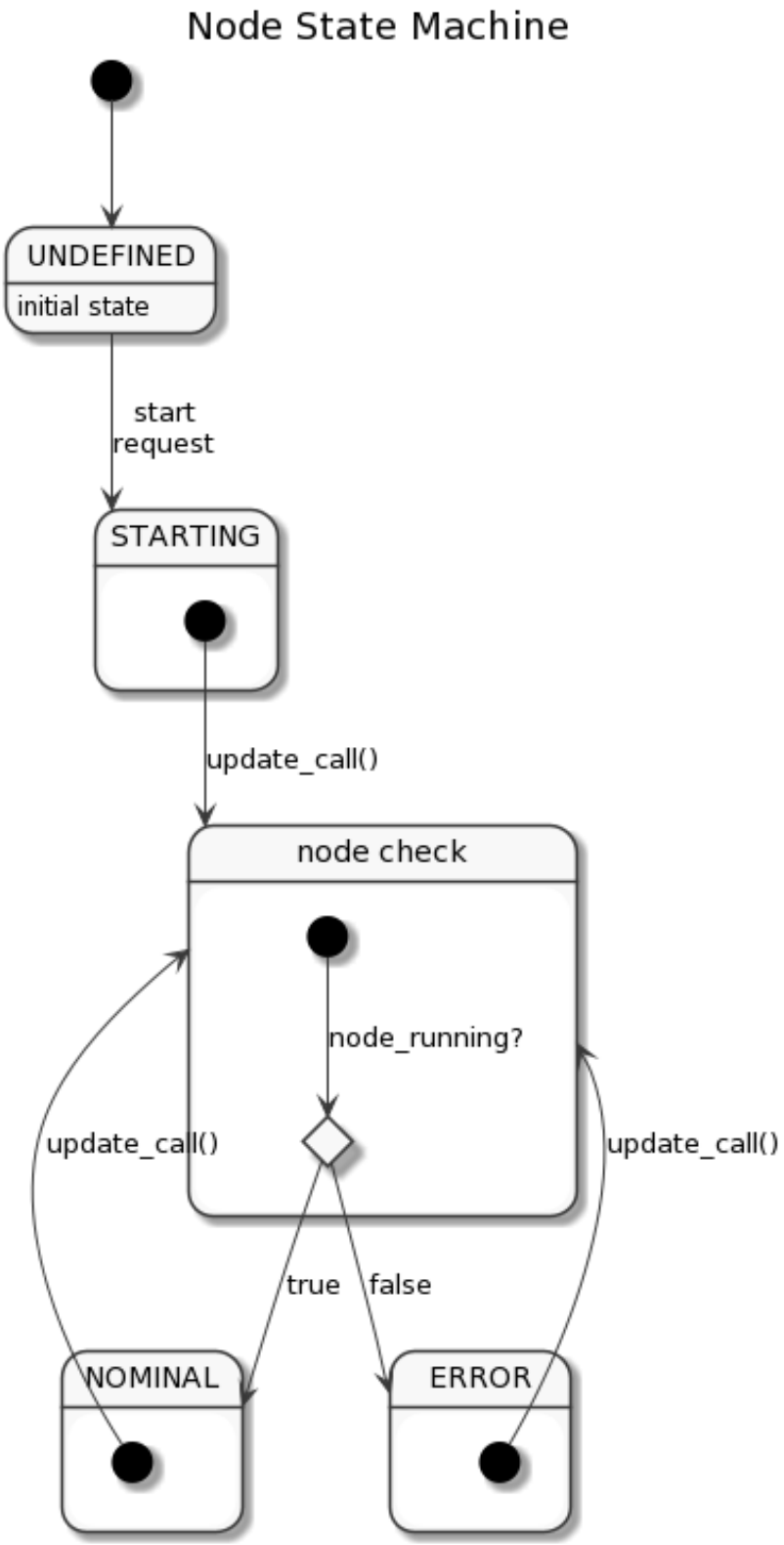
Contents

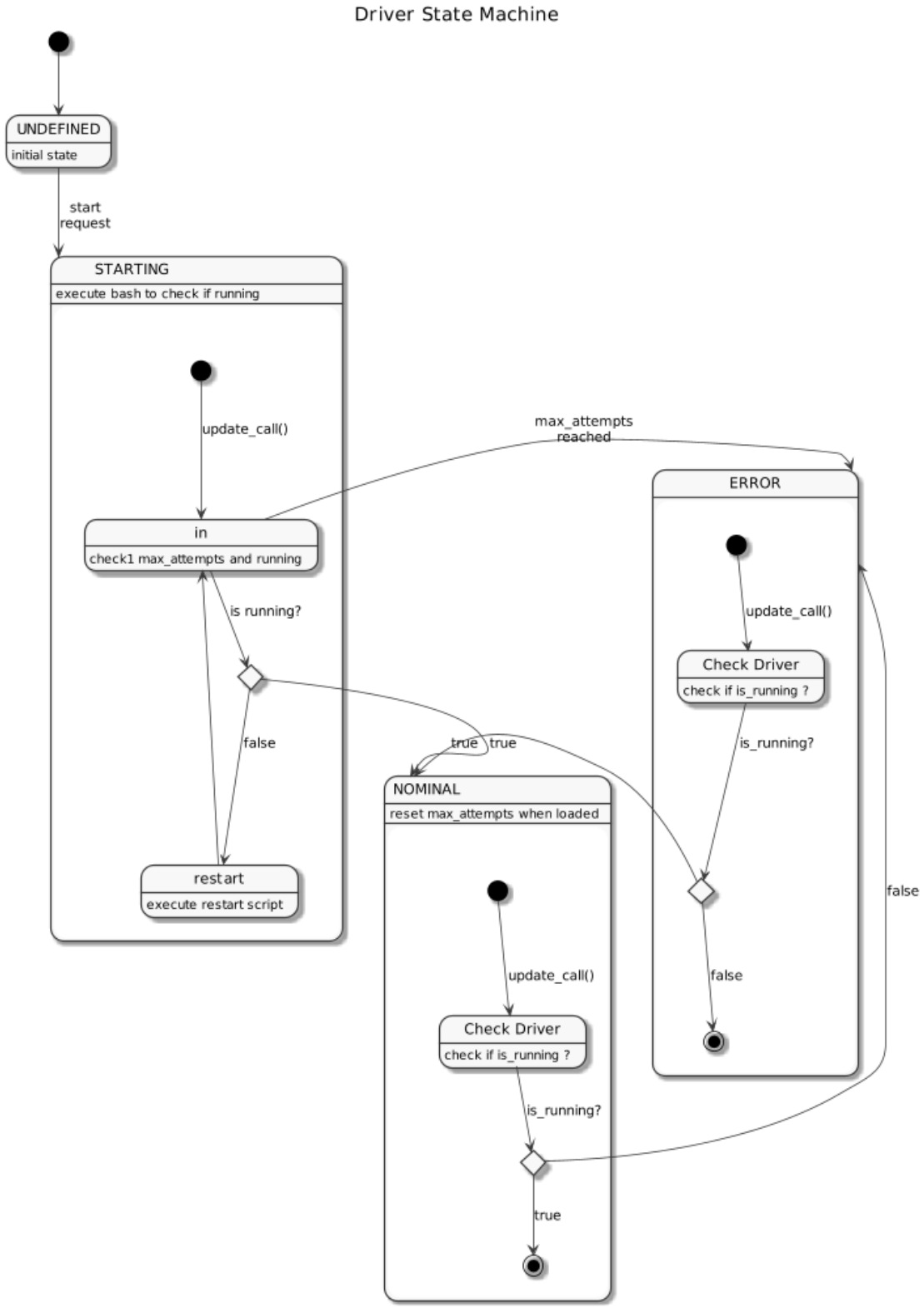
0.0.1 Watchdog State Machine 1

0.0.1 Watchdog State Machine




Topics State Machine
UNDEFINED
initial state
start
request
STARTING
execute bash to check if running
update_call()
incheck1
operation time check
< initial_timeout?
false
received_msg?
true
true
frequency check
marg = percentage margin for failure (not error)
num_dev = numerical difference for allowed pass
rate = required frequency of sensor
false
update_call()
rate-freq < marg
check frequency
ERROR
update_call()
update call
num_dev < abs(rate - freq) < marg
OR
freq-rate > marg
abs(rate - freq) < num_dev
FAILURE
NOMINAL


Node State Machine
UNDEFINED
initial state
start
request
STARTING
update_call()
node check
node_running?
update_call()
update_call()
true
false
NOMINAL
ERROR


Driver State Machine
UNDEFINED
initial state
start
request
STARTING
execute bash to check if running
update_call()
in
check1 max_attempts and running
is running?
false
restart
execute restart script
max_attempts
reached
ERROR
update_call()
Check Driver
check if is_running ?
is_running?
false
true
true
NOMINAL
reset max_attempts when loaded
update_call()
Check Driver
check if is_running ?
is_running?
true
false