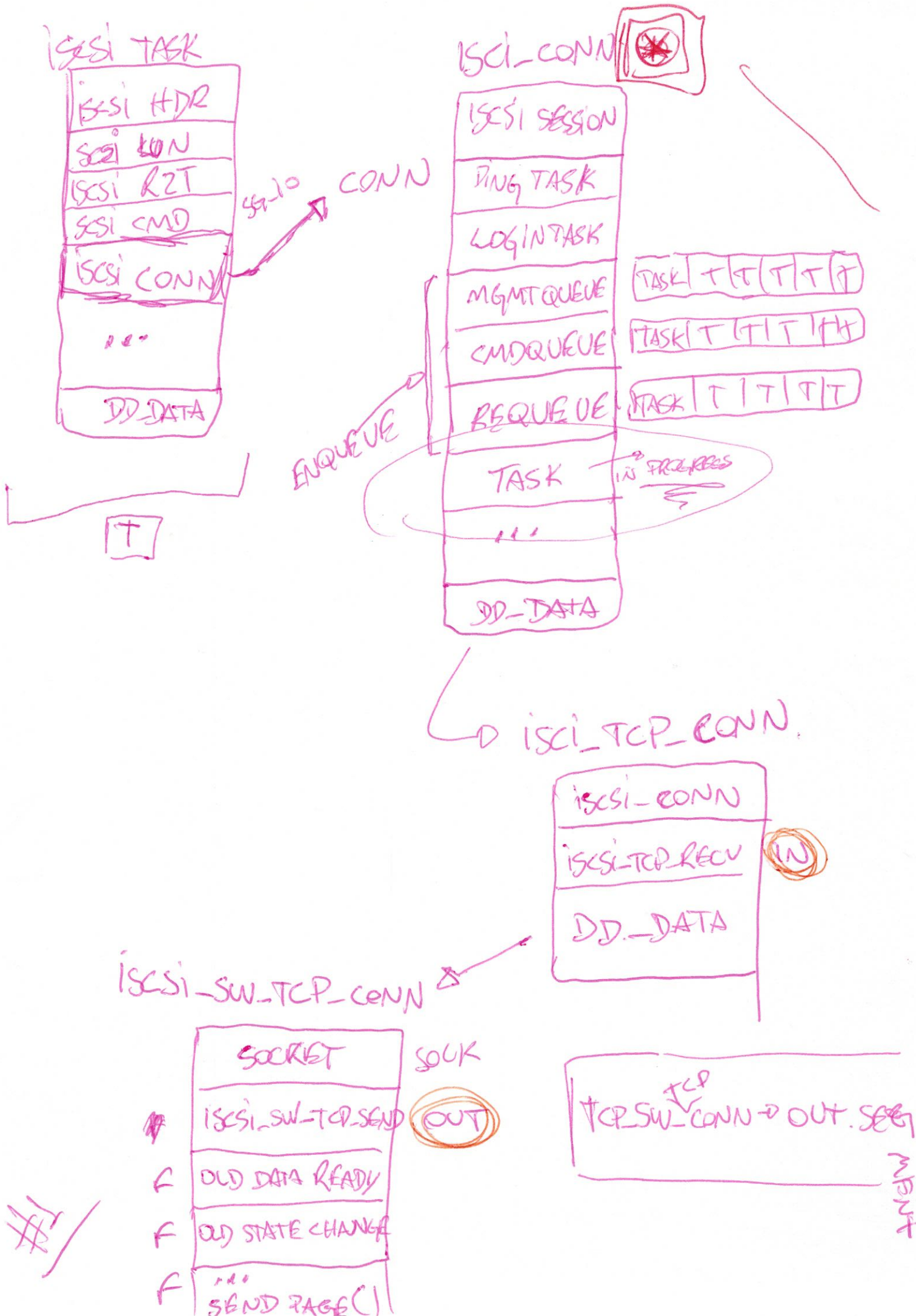

ISCSI TASK
ISCSI HDR
SCSI LUN
ISCSI R2T
SCSI CMD
ISCSI CONN
...
DD_DATA
T
SG_IO
CONN
ISCI_CONN
ISCSI SESSION
PING TASK
LOGIN TASK
MGMT QUEUE
CMD QUEUE
REQUEUE
TASK
...
DD_DATA
TASK T T T T T
TASK T T T T T
TASK T T T T
IN PROGRESS
ENQUEUE
ISCI_TCP_CONN
ISCSI_CONN
ISCSI_TCP_RECV
IN
DD_DATA
ISCSI_SW_TCP_CONN
SOCKET
SOCK
ISCSI_SW_TCP_SEND
OUT
F OLD DATA READY
F OLD STATE CHANGE
F ...
SEND PAGE()
TCP_SW_TCP_CONN → OUT.SEG
MENT

ISCSI_UEVENT_BIND_CONN:

TRANSPORT → BIND_CONN

ISCSI_TRANSPORT

└ ISCSI_SW_TCP_TRANSPORT

- BIND_CONN = SW_TCP_CONNBIN
- GIVEN: CLS_SESSION
  CLS_CONN

SW_TCP_CONN→SOCKET = SOCKFD_LOOKUP

SOCK→SK

SET SW TCP CALL-BACKS

- ~~SK_DATA_READY~~
- SK_STATE_CHANGE
- SK_WRITE_SPACE

ISCSI_TCP_HDR RECV_PREP

ISCSI_SW_TCP_DATA_READY()

- TCP_READ_SOCK() —CALLS BACK→ ISCSI_SW_TCP_RECV()
  - ISCSI_TCP_RECV_SKB
    WHILE STATUS ≠
    ISCSI_TCP_SKB_DONE

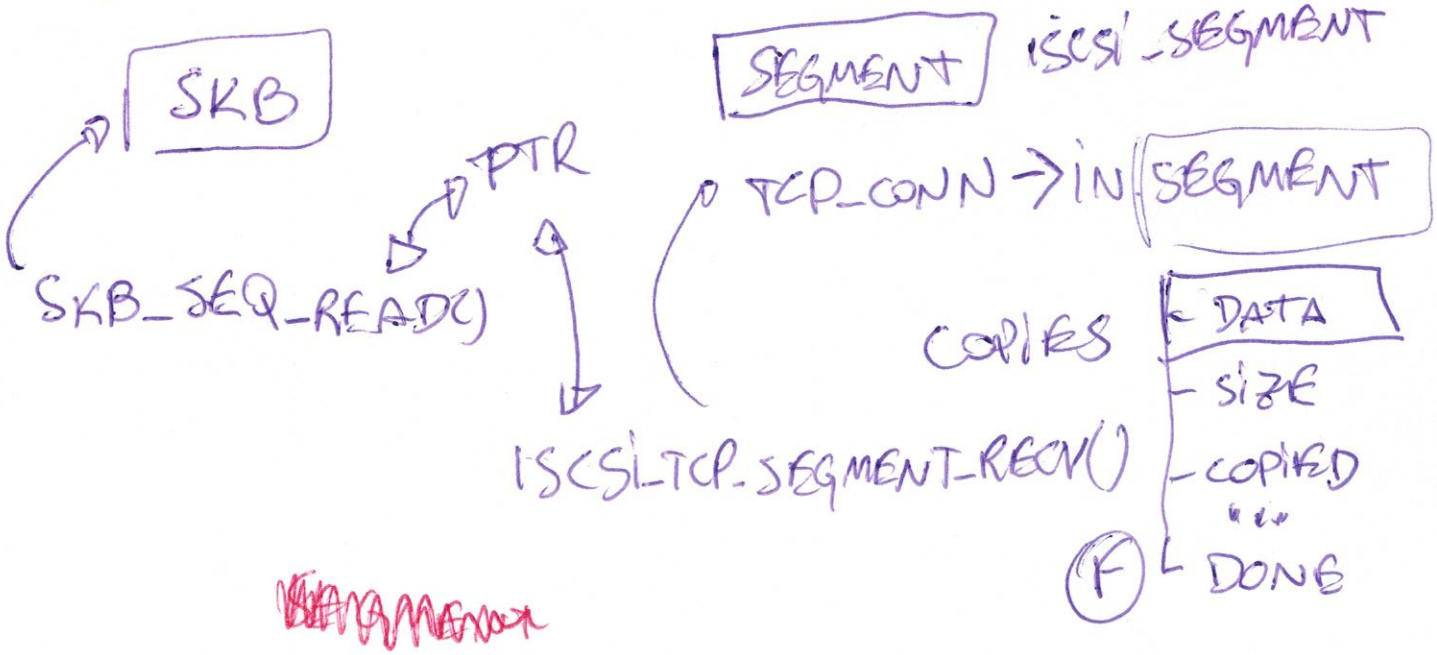
SEG_DONE

SKB_DONE

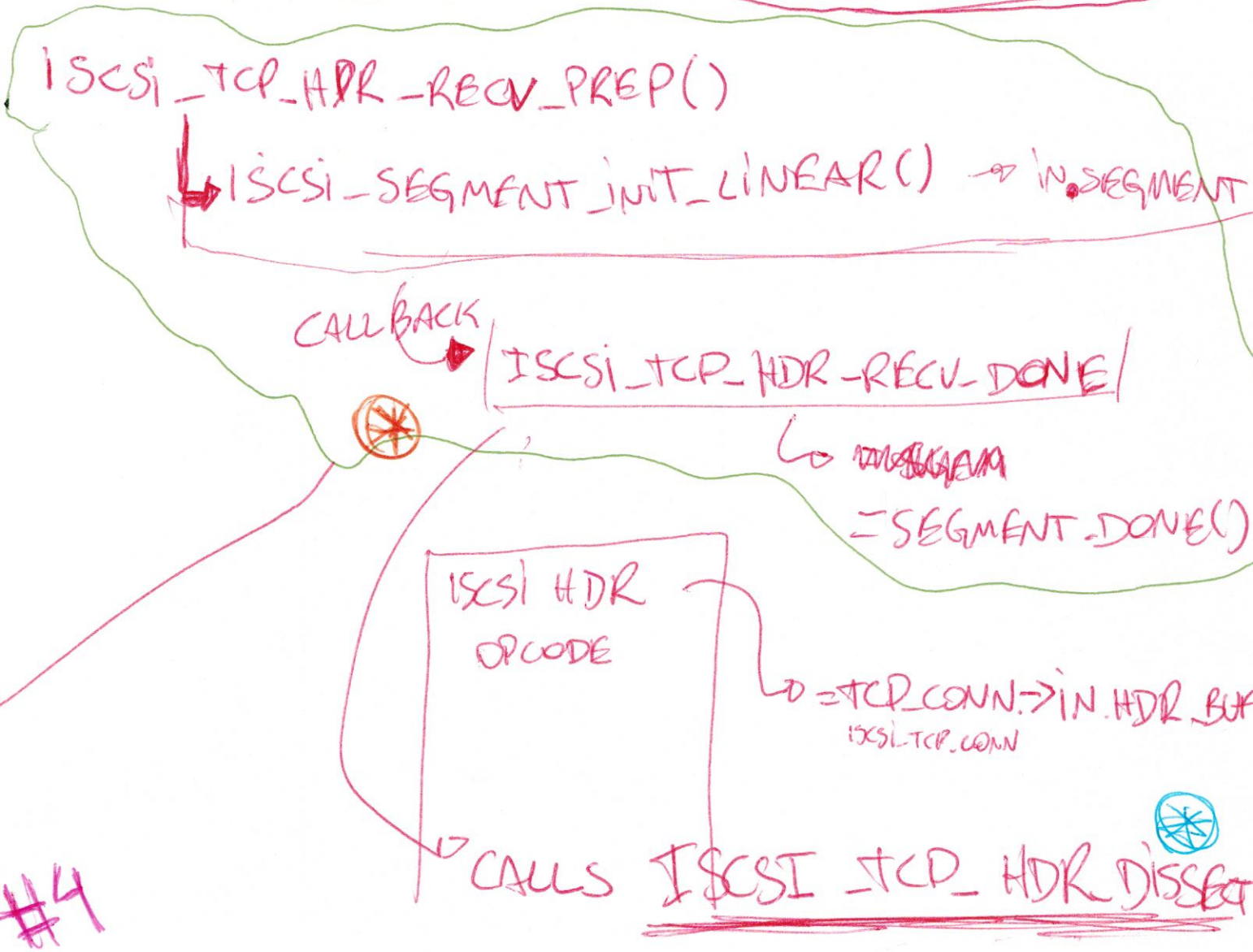
IN_SEGMENT → DONE

#3

ISCSI_TCP_RECV_SKB ():



QUEM CONSOME TCP_CONN->IN.SEGMENT->DATA



#4

TCP_HDR_DISSECT()

HDR COMES WITH THE PDU

HDR → OPCODE
- → DATA_IN
- → SCSI_CMD_RSP
- → R2T

→ LOGIN ou TEXT_RSP ou REJECT ou ASYNC

HDR → ITT INITIATOR TASK TAG
→ USADA PARA ACHAR UMA TASK, ENVOLVIDA, DE SESSION → CMDS[]
↳ SYNC? ESPERANDO RETORNO

OPCODE = SCSI_CMD_RESP

PODE CHAMAR OU NÃO

↳ ISCSI_TCP_DATA_RECV_PREP()
↳ ISCSI_SEGMENT_INIT_LINEAR()
CALLBACK
→ ISCSI_TCP_DATA_RECV_DONE()

ISCSI_COMPLETE_PDU

↳ FOR SOME OPCODES:
- ISCSI_RECV_PDU

ORDEM:

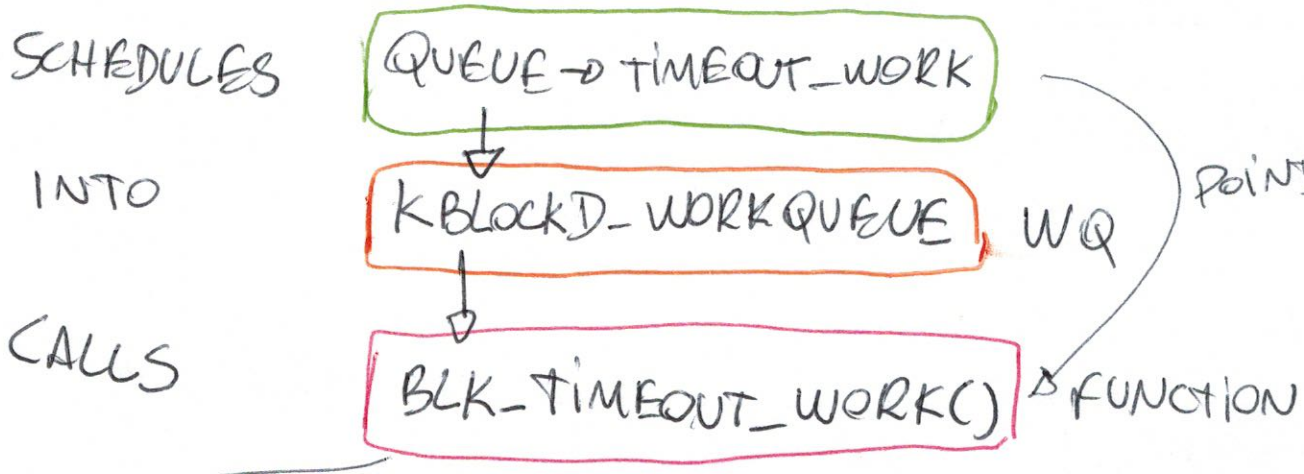
TCP_HDR_DISSECT
↳ OP CODE = CMD RSP?
↳ COMPLETE_PDU
↳ OP CODE = CMD RSP?
- LOOK FOR TASK, CHANGE STATUS → COMPLETED
- COMPLETE TASK

#5

QUEUE → TIMEOUT_WORK

WORK STRUCT → CALLS BLK_TIMEOUT_WORK

BLK_RQ_TIMED_OUT_TIMER(); → PER DEVICE'S REQ QUEUE



→ CHECKS — QUEUE → TIMEOUT_LIST

→ CHECKS — IF REQUESTS ARE EXPIRED:

- BLK_RQ_TIMED_OUT()

↳ CALLS QUEUE → RQ_TIMED_OUT_FN

VIRTUAL IO DEVICES

↳ ~ "SCSI_TIMES_OUT"

SET IN SCSI_ALLOC_QUEUE

ISCSI_SW IMPLEMENTS

→ CHECKS HOST LAST RESET

→ USES HOST'S EH_TIMED_OUT()

- EH_HANDLED - FIXED, COMPLETE CMD
- EH_RESET_TIMER - NEED MORE TIME
- EH_NOT_HANDLED - BEGIN RECOV

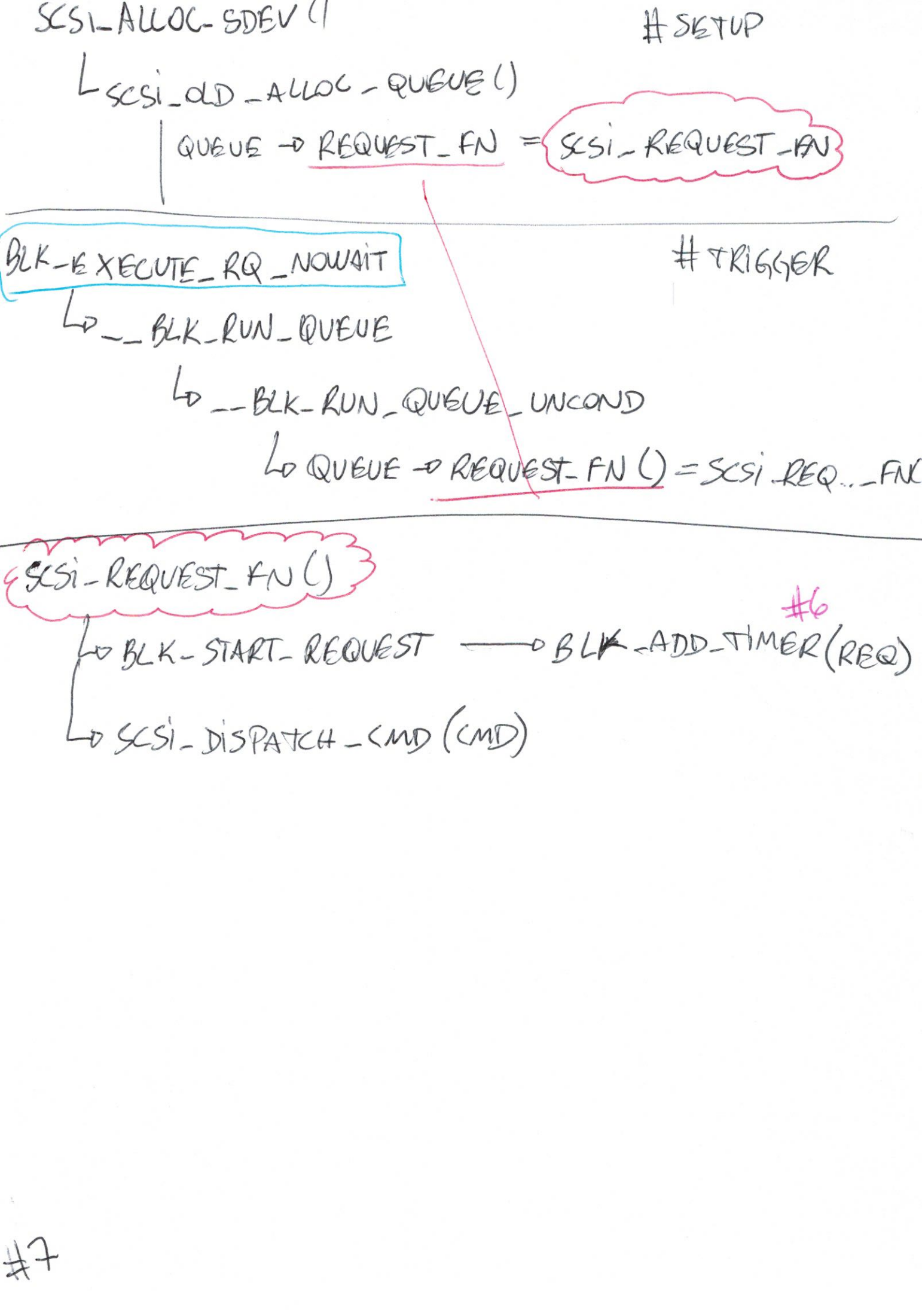
→ NOTHING

→ BLK_ADD_TIMER() AGAIN

BLK_CLEAR_RQ_COMPLETED()

BLK_COMPLETE_REQUEST()

#6


SCSI_ALLOC_SDEV()
#SETUP
SCSI_OLD_ALLOC_QUEUE()
QUEUE → REQUEST_FN = SCSI_REQUEST_FN
BLK_EXECUTE_RQ_NOWAIT
#TRIGGER
__BLK_RUN_QUEUE
__BLK_RUN_QUEUE_UNCOND
QUEUE → REQUEST_FN() = SCSI_REQ..._FN
SCSI_REQUEST_FN()
#6
BLK_START_REQUEST → BLK_ADD_TIMER(REQ)
SCSI_DISPATCH_CMD(CMD)
#7