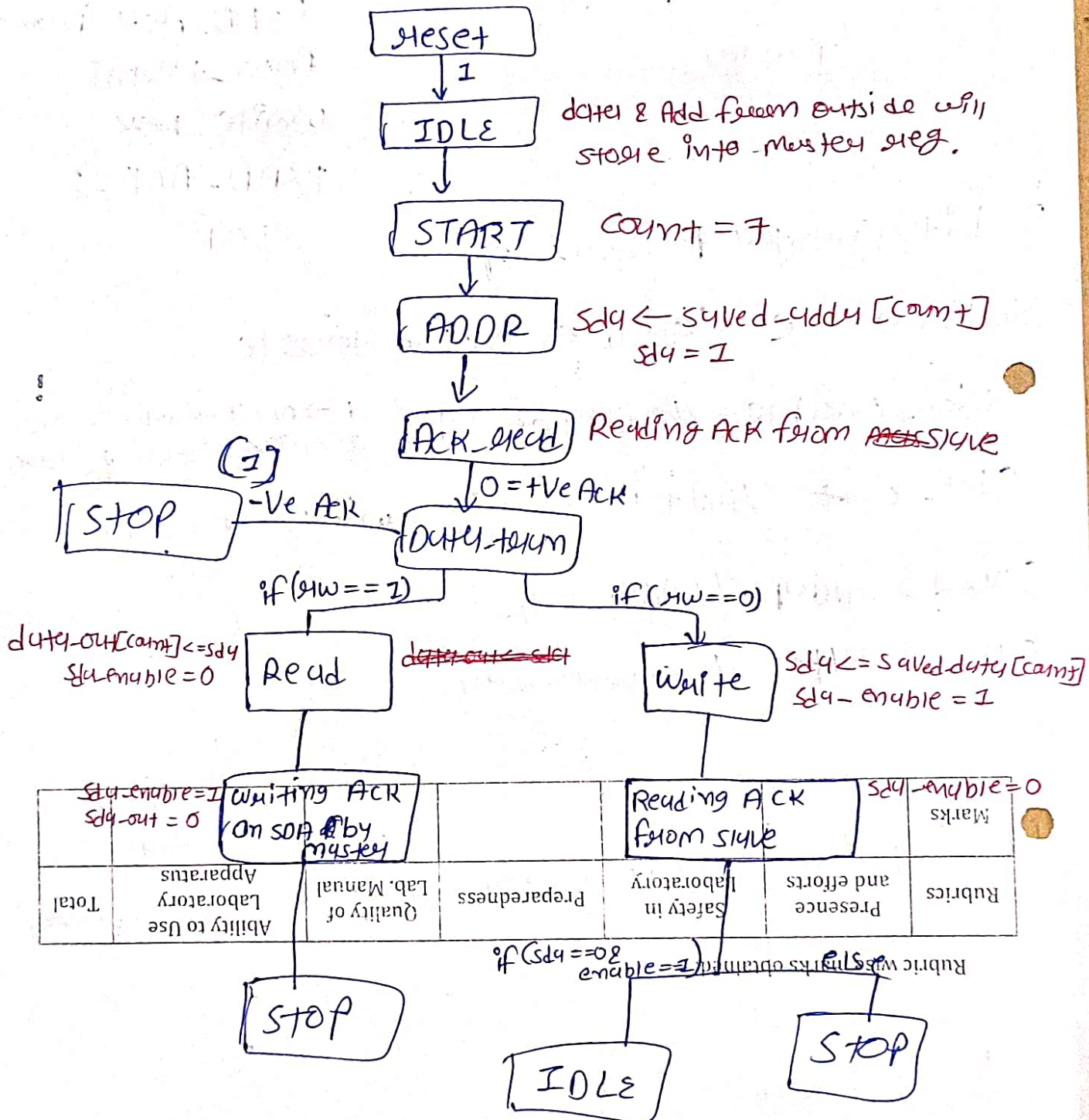
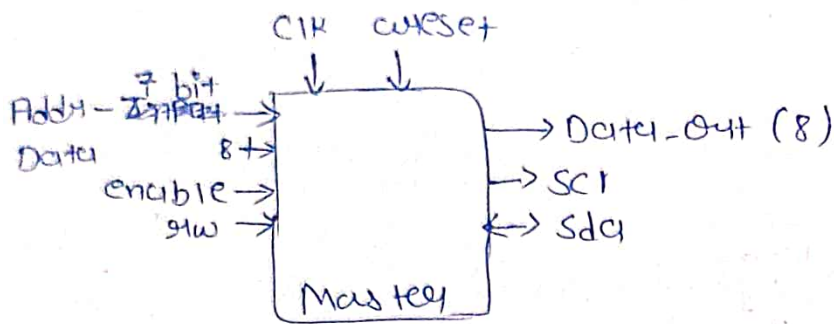


Master



SCI toggles when scl_enable is 1

Conclusion:



IDLE
 START
 ADDR *← Actually checks bit 9th clock*
 READ-ACK (from slave)
 Data returns
 Write-ACK
 READ-ACK-2
 STOP

3-bit counter for count 7

scl-enable // enables scl to toggle

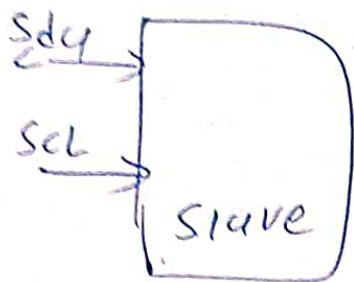
sda-enable // enables sda
 1 → master drives sda
 0 → master requests slave
 pin

sda-out // At last signal out to sda pin

saved-addr // Address + s/w

saved-data // saved data

During idle, start & stop state
 scl should not toggle ~~show~~



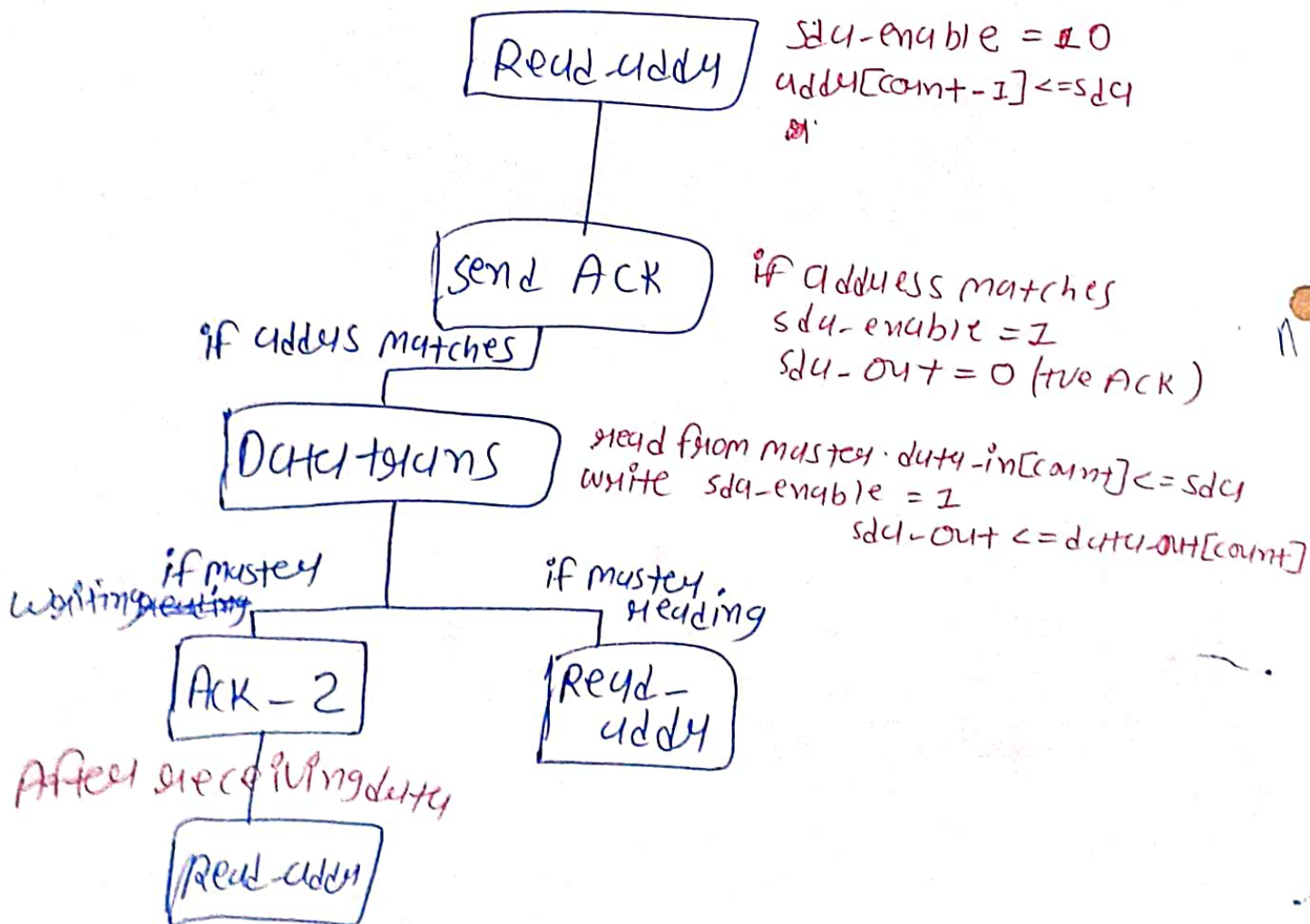
Read-addr
 send-ACK
 Data-trans
 send-ACK-2

has 7-bit physical Address

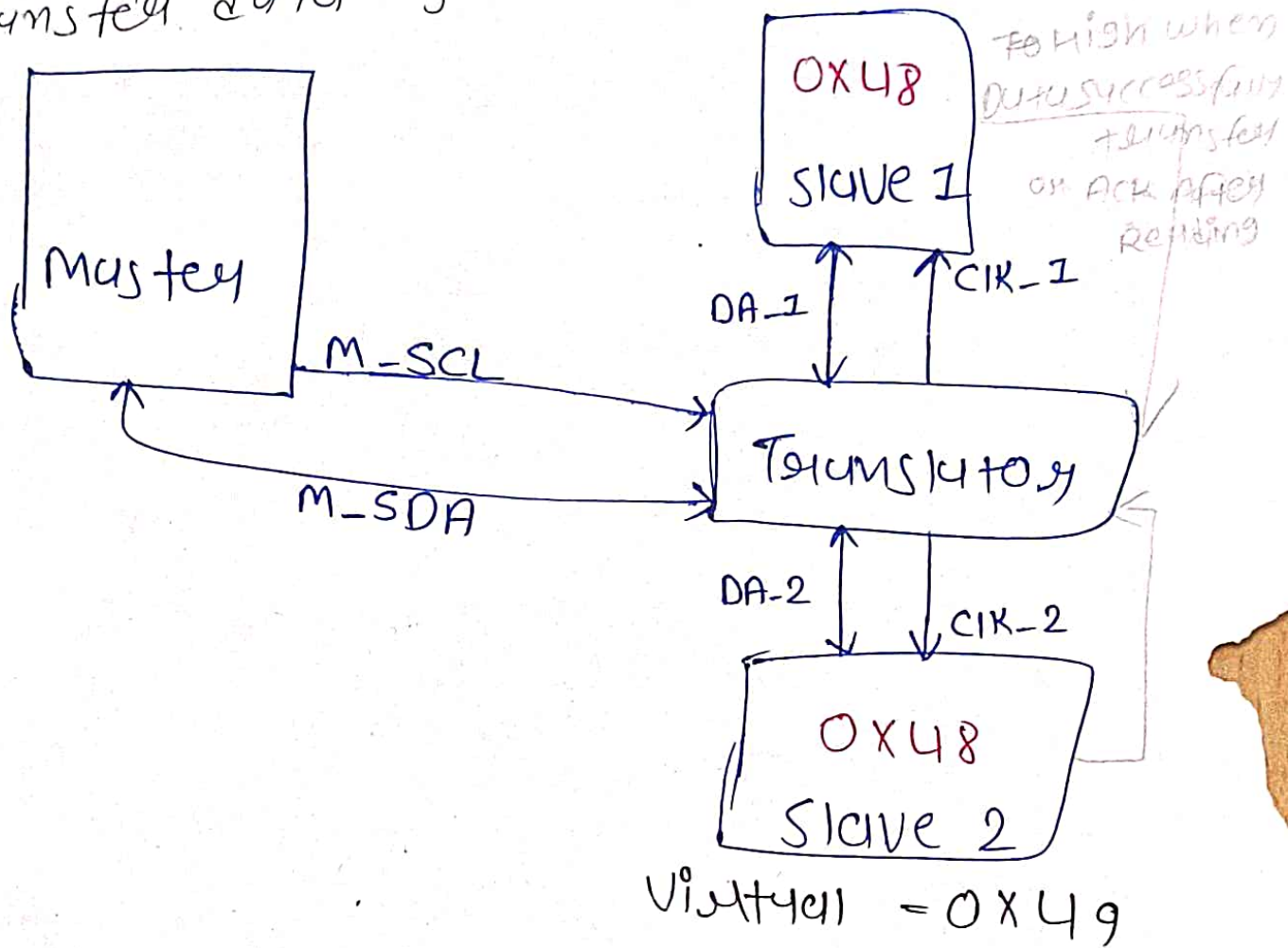
if (Sda == 0 && Scl == 1) start condition
 if (Sda == 1 && Scl == 1) stop condition

ideally both will be high

slave



After receiving data \downarrow done = 2
 & transfer data

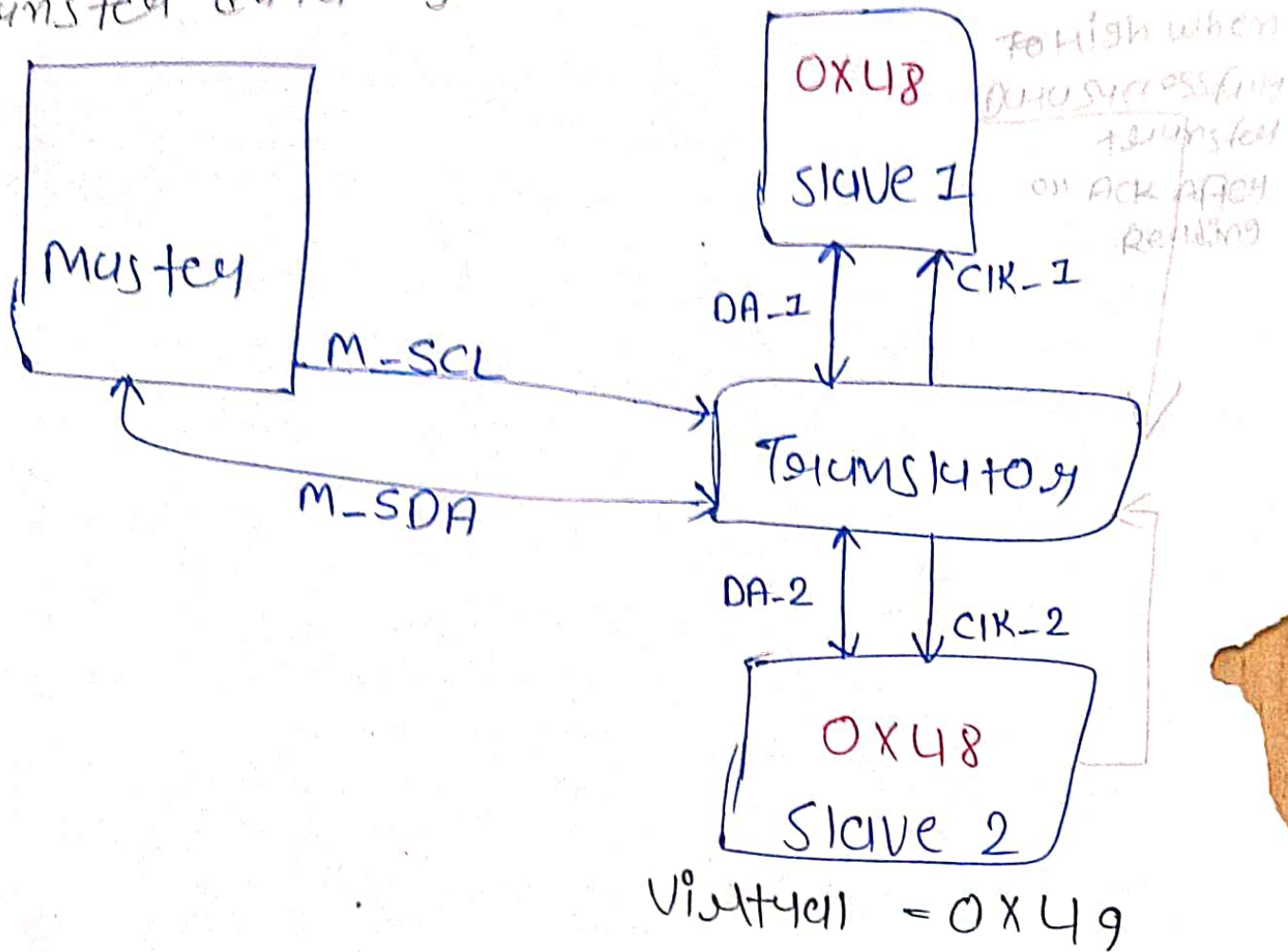


Master sends add. \rightarrow Translator checks all add with incoming if it has then +ve ACK & stores data normally



After comm. Translator behaves as master

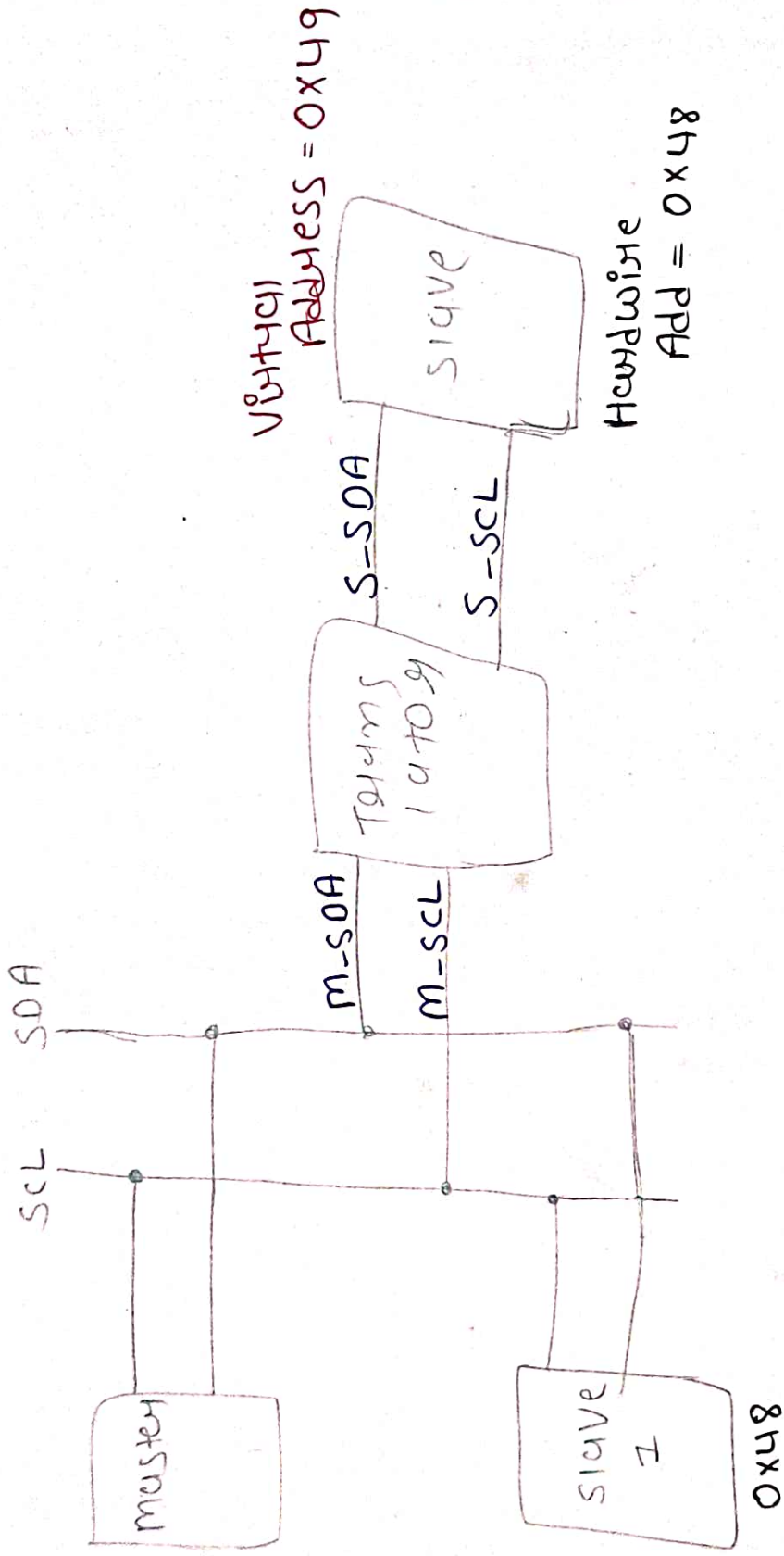
After receiving data / done = 2
 & transfer data



Master sends add. → Translator checks all add. with incoming if it has then give ACK & stores data normally



After comm. Translator behaves as master



Transistor acts slave toward master
Transistor acts master toward slave