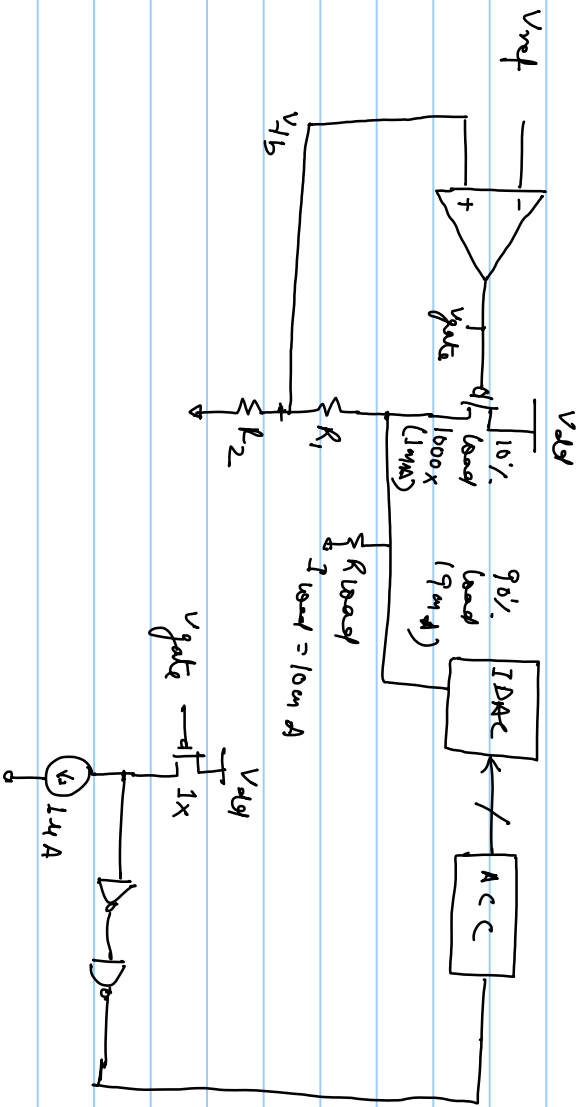


Hybrid $\Sigma\Delta\Delta$ (Analog + Digital)



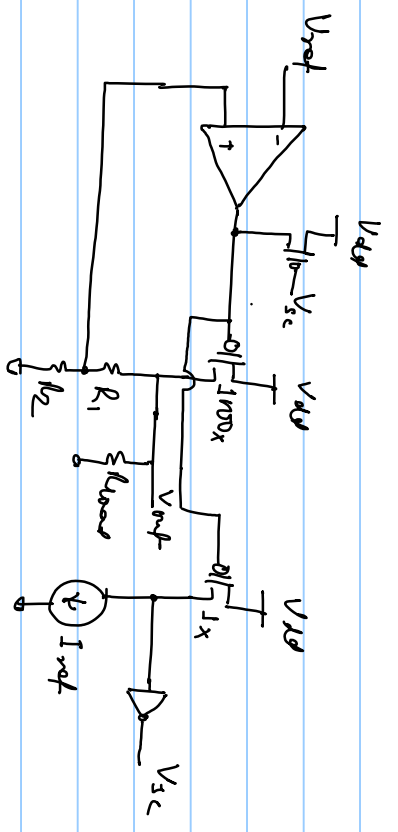
current limit and short circuit protection

Why do we need current limit?

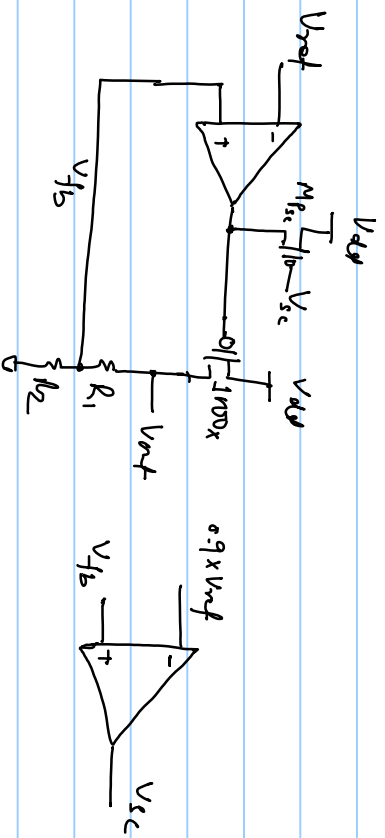
→ to prevent power MOSFET from entering triode region (poor PSRR in triode region)

→ MOSFET reliability

→ Electrostatic protection



current sense short circuit protection,



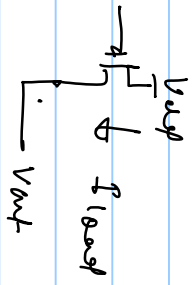
Voltage, based short circuit protection,

V_{sc} goes low if there is a short circuit

Mpsc pulse power FET gate drive to turn OFF also LDO.

V_{sc} is periodically set to 1 (high) to check if short circuit has been removed or not.

Foldback current limit



Power dissipated in MOSFET

$$= (V_{dd} - V_{out}) I_{load}$$

