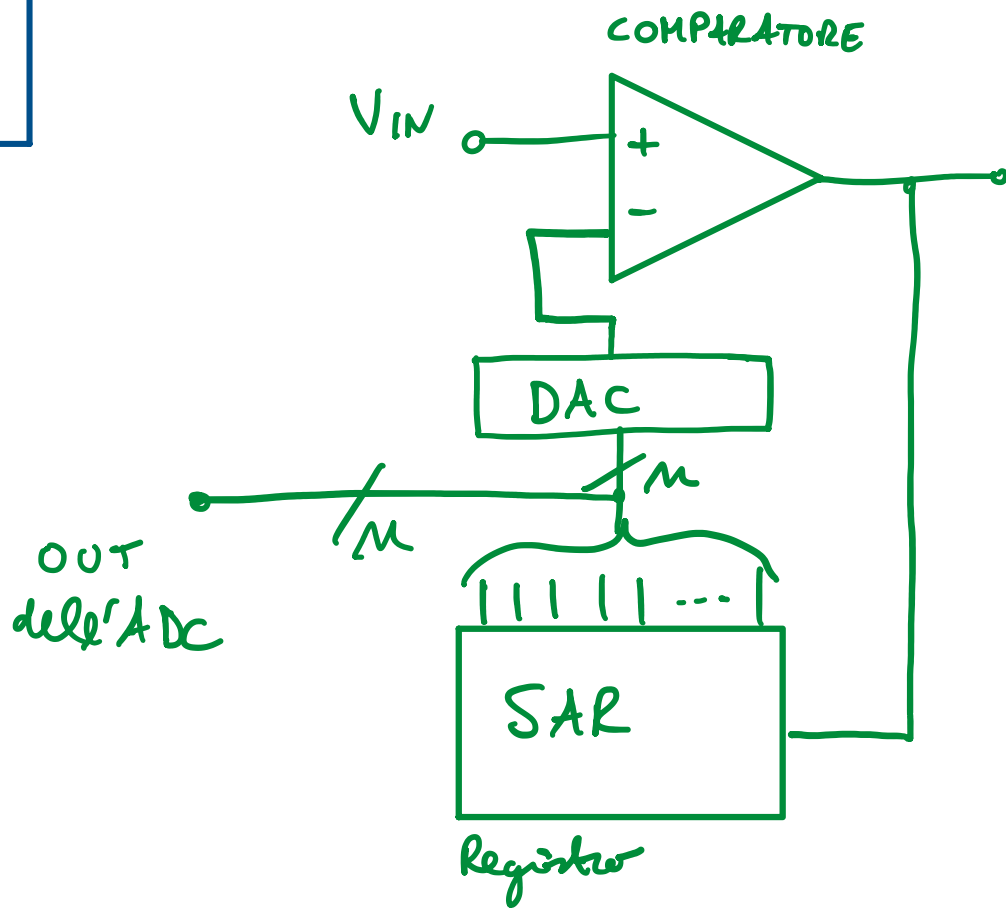


Circuito di protezione per ESD (Electro Static Discharge)

Convertitore ADC

SAR



SAR = 0

for ( $i = M-1; i > 0; i--$ )

{ SAR[i] = 1

if (analog(SAR) > VIN  
then SAR[i] = 0

}

ES.

Vin = 3V su 2 bit

step ini = SAR = [0 0]

step 1: SAR = [1 0] → analog(SAR) = 2 → analog(SAR) > VIN? No  
SAR = [1 0]

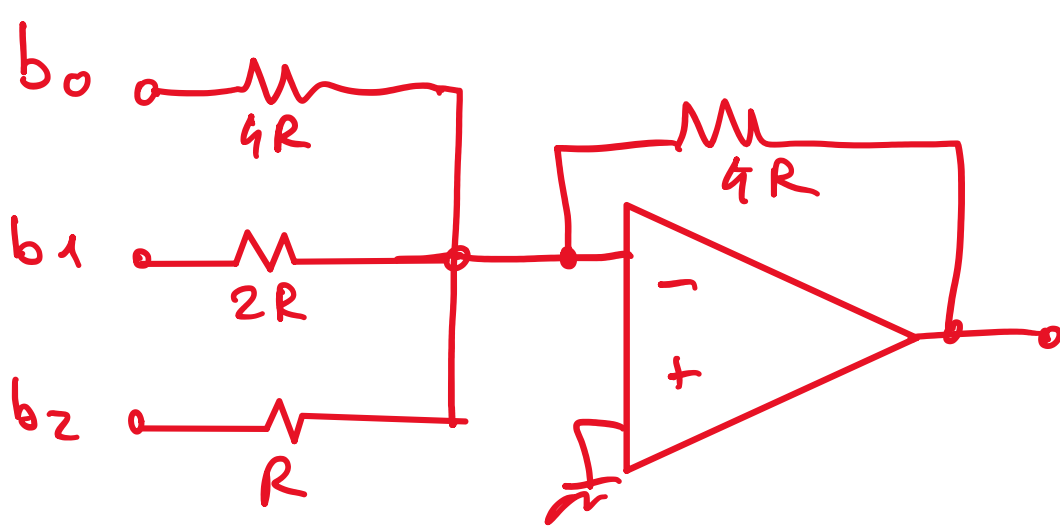
step 2: SAR = [1 1] → analog(SAR) = 3 → analog(SAR) > VIN? No  
SAR = [1 1]

3 bit

$b_2, b_1, b_0$

$$b_2 \cdot 2^2 + b_1 \cdot 2^1 + b_0 \cdot 2^0$$

$$4b_2 + 2b_1 + b_0$$



$$V_U = - \frac{4R}{4R} b_0 - \frac{4R}{2R} b_1 - \frac{4R}{R} b_2$$

$$V_U = - [4b_2 + 2b_1 + b_0]$$