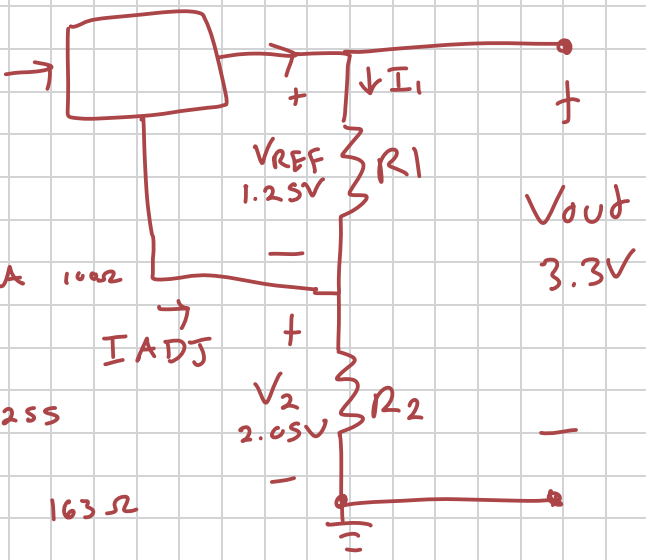
Power

2/13/25

$V_{out} = V_{Ref}\left(1+\frac{R2}{R1}\right) + I_{ADJ}(R_2)$

$3.3 = (1.25)\left(1+\frac{R2}{R1}\right) + I_{ADJ}(R2)$

5V Vin



$R1 = 270\,\Omega$

$I_1 = \frac{1.25}{270} = 4.6\ mA$ 12.5mA 100Ω

$I_{ADJ} = 50\,\mu A$ (?)

$I_{tot} = 4.68\,mA$ .01255

$R = \frac{2.05}{4.68mA} = 438.03\,\Omega$ 163Ω

2/26/25

Above regulator had too high voltage drop

↳ look into other power converters

- LDO → not enough current output
- Buck → works but more complex/expensive
- DC DC Module → works & simple ✓ (TPSM84203EAB)
  ↳ fixed 3V3 output