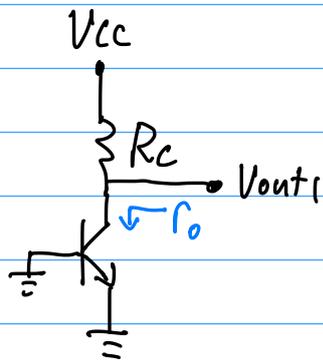


The small signal half circuit is:



$$\therefore V_{out1} = \frac{r_o}{r_o + R_c} \cdot V_{cc}$$

By symmetry, $V_{out2} = V_{out1}$.

However the differential signal is $V_{out1} - V_{out2}$.

$$\therefore \frac{V_{out}}{V_{cc}} = \frac{V_{out1} - V_{out2}}{V_{cc}} = 0.$$

The response is independent of small changes in V_{cc} . This is unlike all the circuits in 10.3.

\therefore The diff pair is useful to reject power supply ripple.