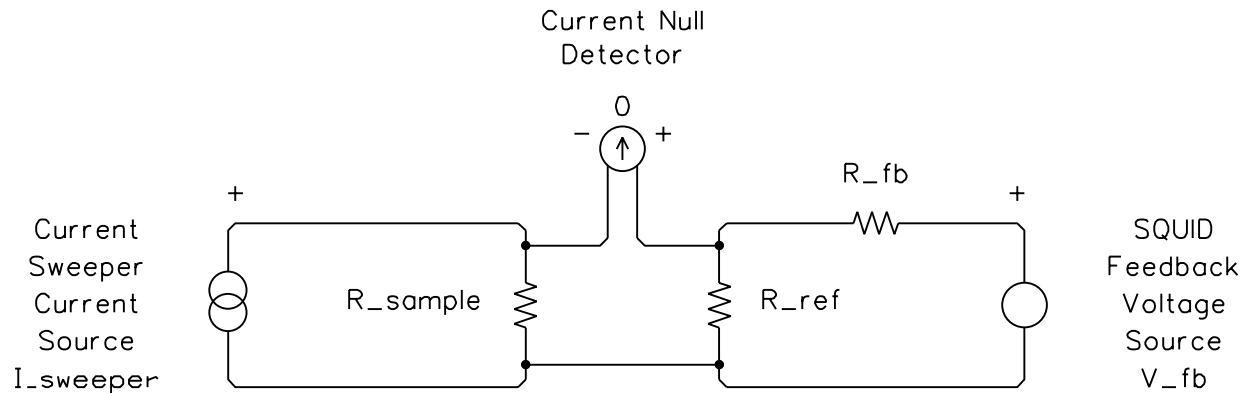
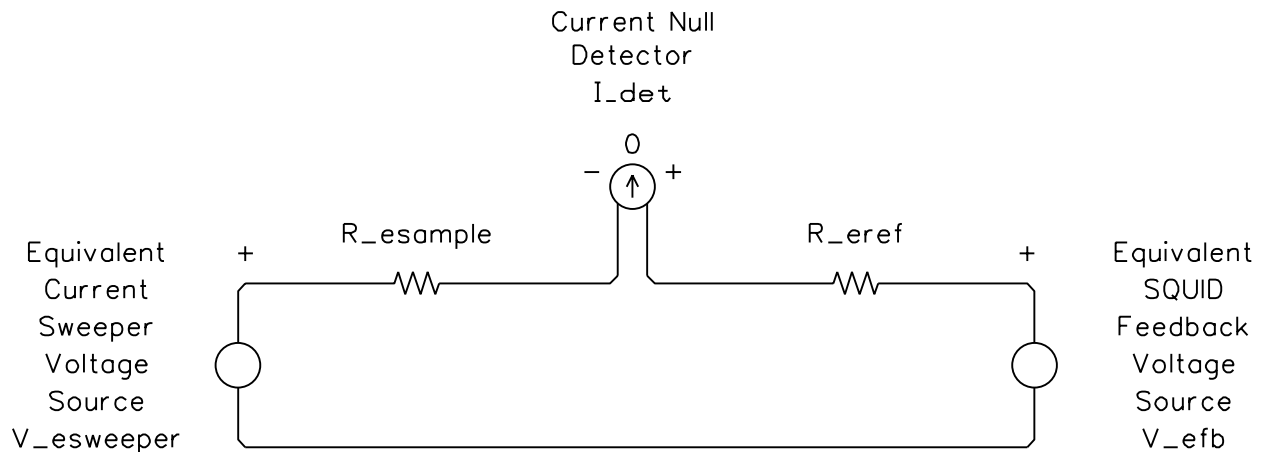


Quick Dipper Bridge & Equivalent Circuit



Quick Dipper Bridge Circuit



Equivalent Bridge Circuit

$$R_{\text{esample}} = R_{\text{sample}}$$

$$R_{\text{eref}} = \frac{R_{\text{fb}} \times R_{\text{ref}}}{R_{\text{fb}} + R_{\text{ref}}}$$

$$V_{\text{esweeper}} = I_{\text{sweeper}} \times R_{\text{sample}}$$

$$V_{\text{efb}} = \frac{R_{\text{ref}}}{R_{\text{fb}} + R_{\text{ref}}} \times V_{\text{fb}}$$

$$I_{\text{det}} = \frac{V_{\text{esweeper}} - V_{\text{efb}}}{R_{\text{esample}} + R_{\text{eref}}}$$