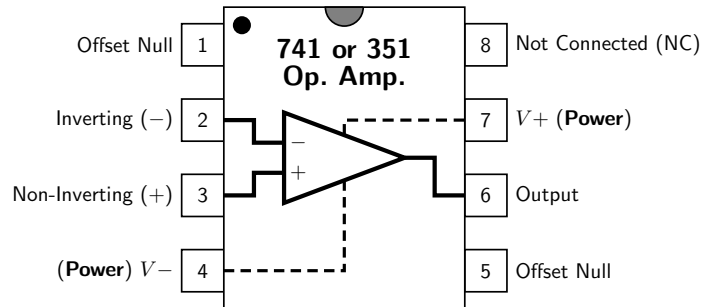


Part Pin-outs

Lab 4: Oscillators

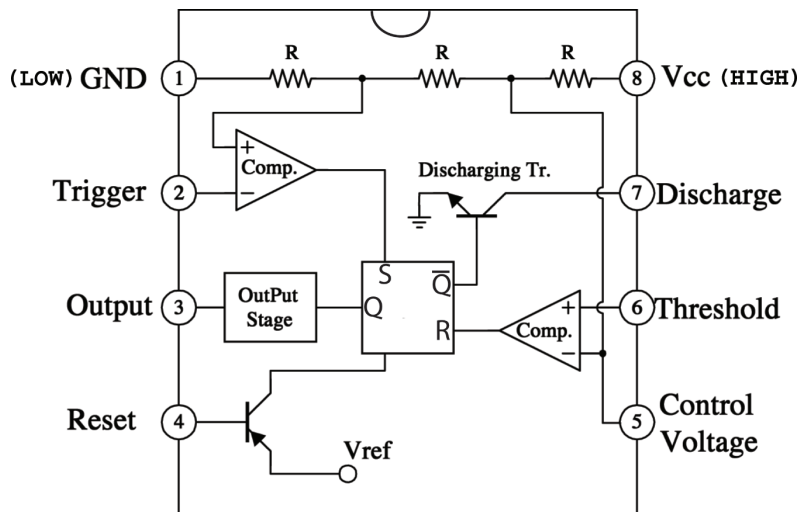
ECE 327: *Electronic Devices and Circuits Laboratory I*



LM741 or LF351 op. amp.

Typical operational amplifier specifications

| Part: | LM741 | LF351 |
|-------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Supply rails: | typical: $\pm 15 V_{DC}$ min: $\pm 5 V_{DC}$ max: $\pm 18 V_{DC}$ | typical: $\pm 15 V_{DC}$ min: $\pm 5 V_{DC}$ max: $\pm 18 V_{DC}$ |
| Input impedance: | 2 M Ω | 10 ⁶ M Ω |
| DC gain: | 200,000 V/V | 100,000 V/V |
| Input bias current: | 80,000 pA | 50 pA |
| Slew rate: | 0.5 V/ μ s | 13 V/ μ s |
| Maximum output current: | 20 mA | 20 mA |
| Gain-bandwidth product: | 1 MHz | 4 MHz |



LM555/NE555 timer