

Regulated DC Supply

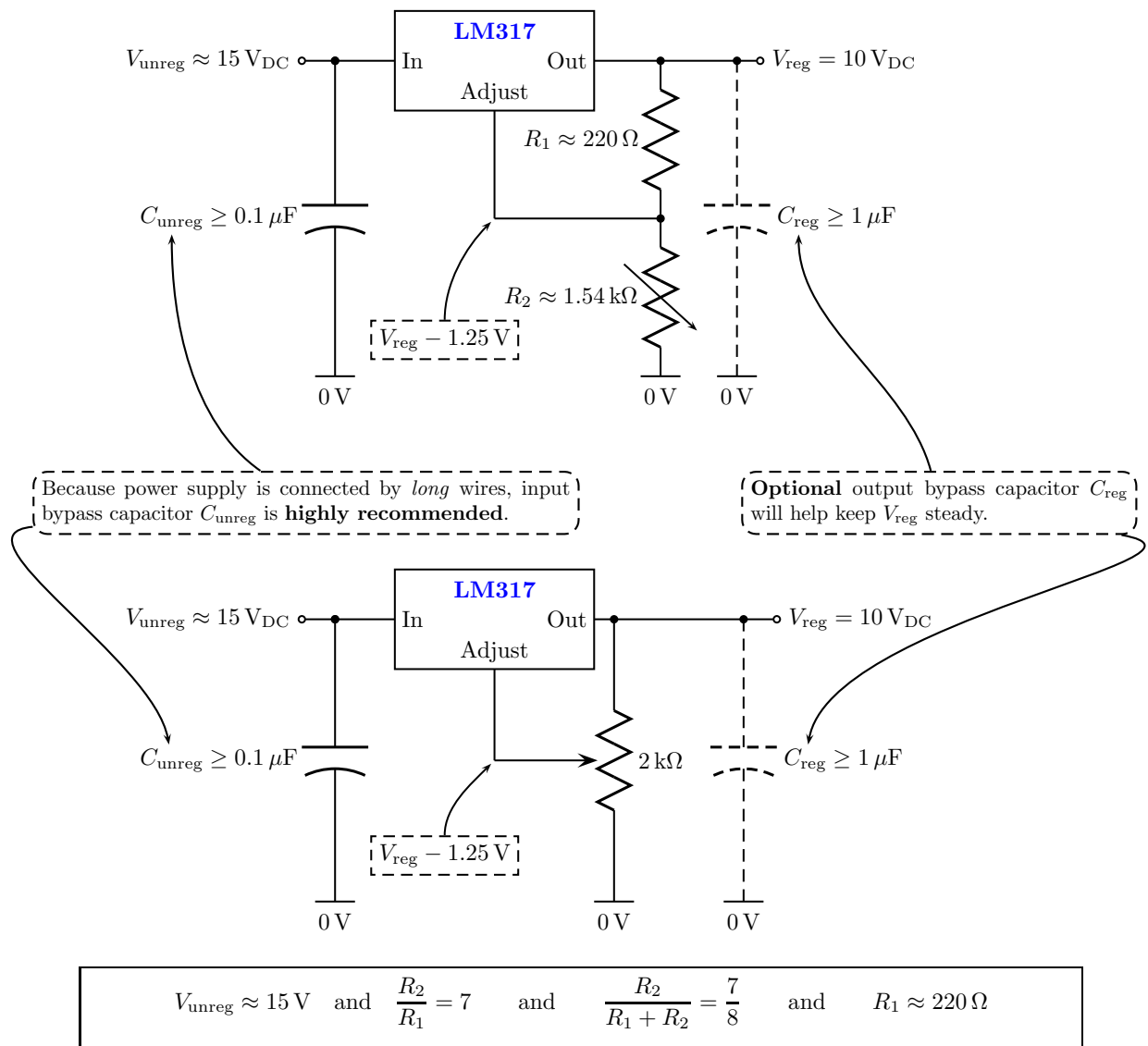
Lab 5: Analog-to-Digital Conversion

ECE 327: *Electronic Devices and Circuits Laboratory I*

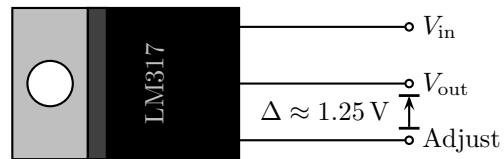
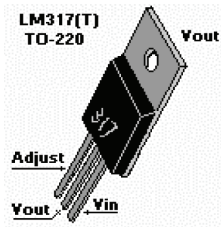
1 Regulated 10 V_{DC} Supply

A single regulated supply powers every transmitter component. Receiver components use a separate supply.

1. Isolate two separate sets of 0 V and 10 V supply rails on your breadboard (or use two breadboards).
2. Connect [LM317](#) regulated output to transmitter supply rail.
3. Connect unregulated DC supply (e.g., 15 V_{DC}) to [LM317](#) input. Make connection easy to find later.
4. A **large** bypass capacitor (e.g., 1–10 μF) may be placed *near* [LM317](#) from **Adjust** to ground.
5. A $\sim 0.1 \mu\text{F}$ bypass capacitor to ground can be placed at the 10 V input to each circuit component.

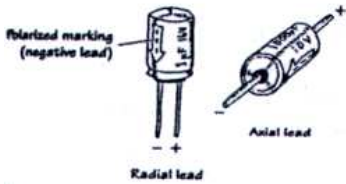


A Parts

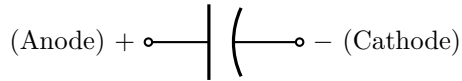


(a) LM317 3-terminal adjustable regulator

Electrolytic



“ACE” — “Anode Current Enters”
 “CCD” — “Cathode Current Departs”



(b) Electrolytic capacitor

Figure A.1: Part pin-outs.