BCIT

School of Energy

Electronics Fabrication
DC Power Supply

Cabinet Assembly Guidelines

Prepared by: M. LeNoble

Shop Safety

When working in the shop…

- Safety glasses must be worn at all times. (No exceptions)
- Closed toed shoes are to be worn.
- Wear close fitting clothing that cannot interfere with work.
- Tie back long hair so that it cannot interfere with work.

Cabinet Assembly

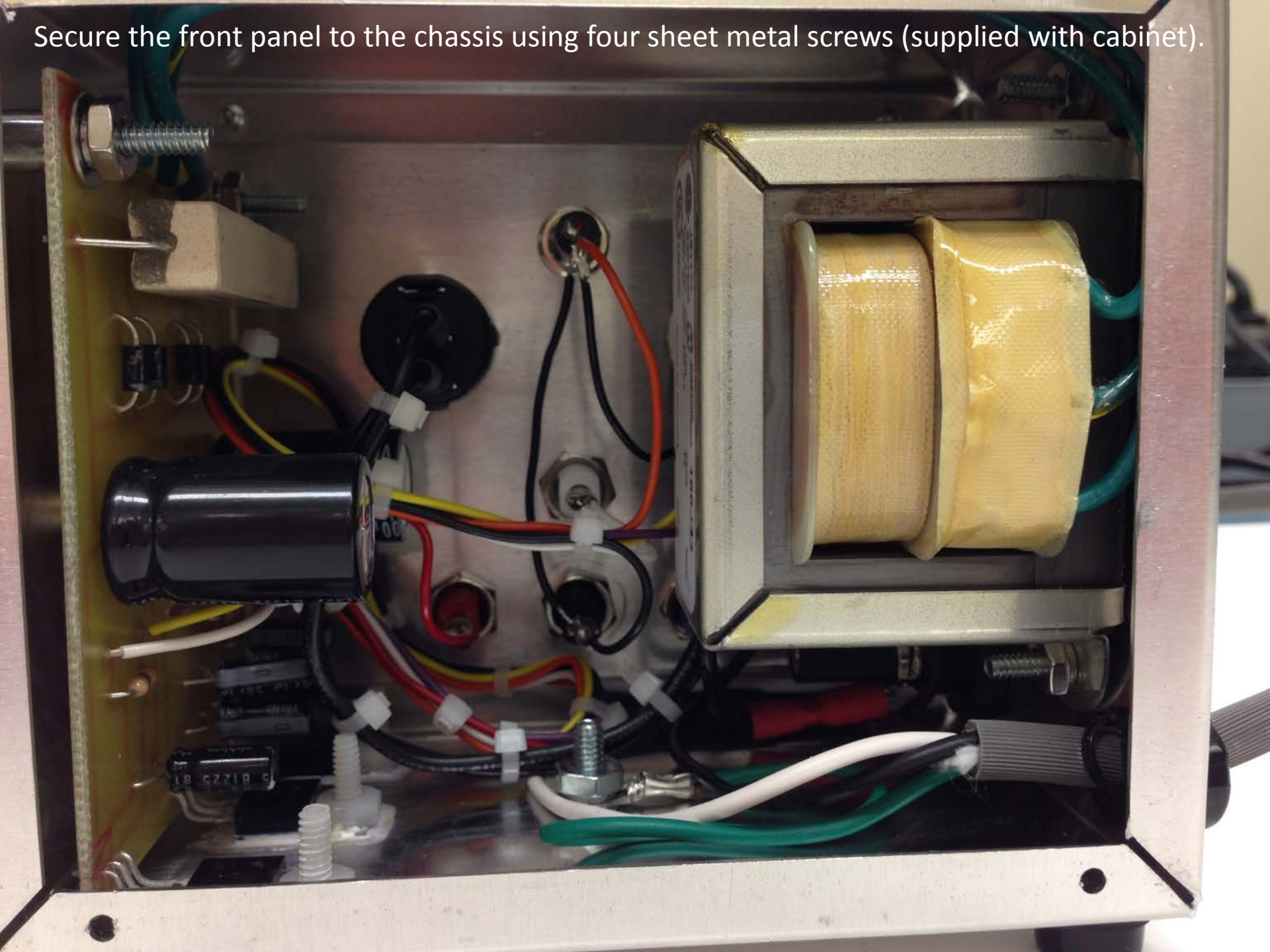
- Phase 4 completes the DC Power Supply manufacture.
- The following tools are required for this phase of work:

Student Supplied	Shop Supplied
Safety glasses*	Screw drivers

* Must be worn at all times when working in the shop.

Rotate the potentiometer shaft fully CCW. Mount the knob on to the shaft with the indicator stripe in the 7 o’clock position. Use a screw driver to secure the knob to the shaft. Ensure there is uniform clearance (about 1mm) between the front panel and the knob. Rotate the knob fully CW and confirm the indicator stripe is approximately in the 5 o’clock position.

Secure the front panel to the chassis using four sheet metal screws (supplied with cabinet).

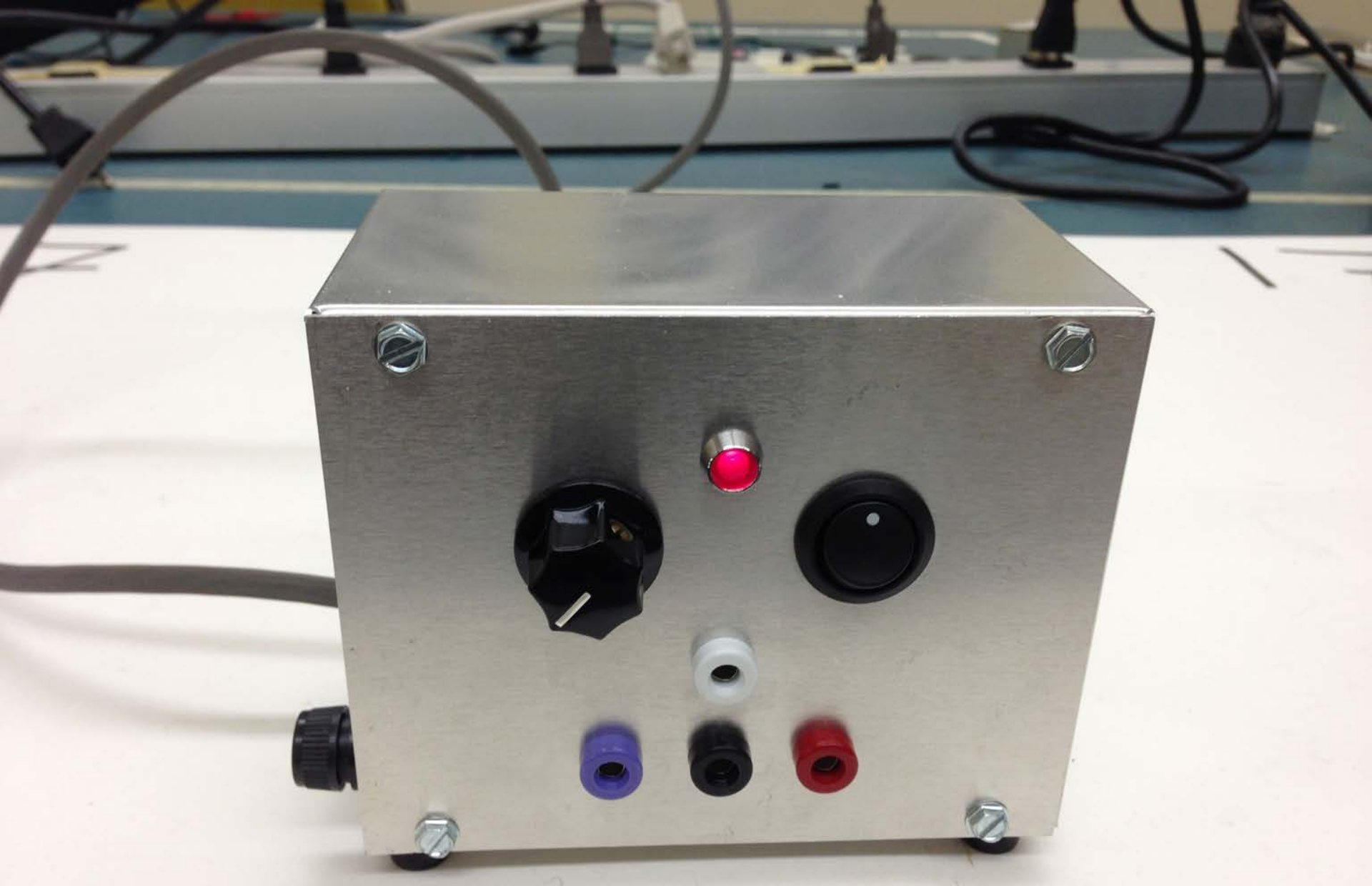


Obtain four rubber feet

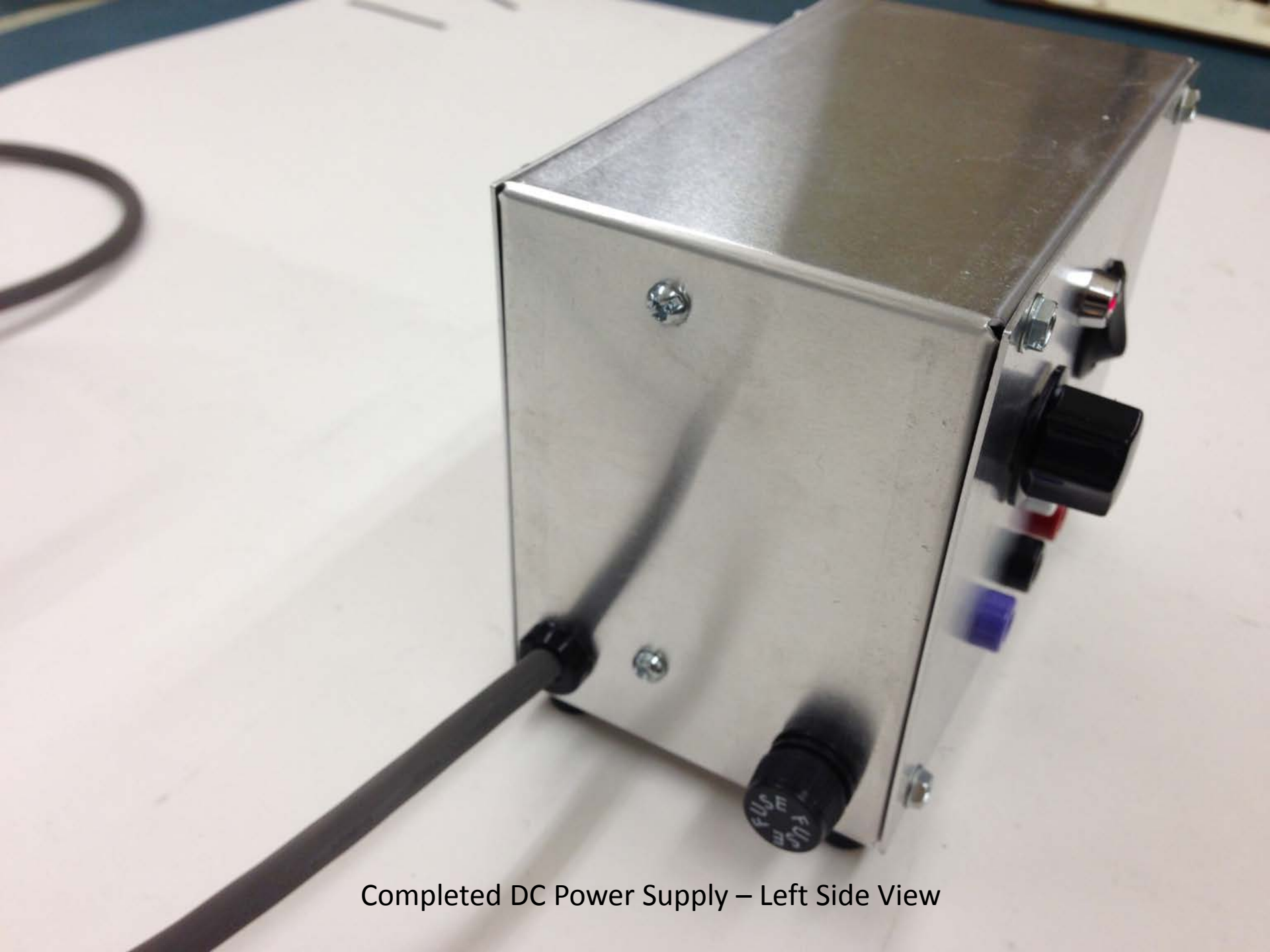
Peel rubber feet off backing material to expose adhesive
and affix one at each corner on the bottom of the chassis.

Cabinet Assembly

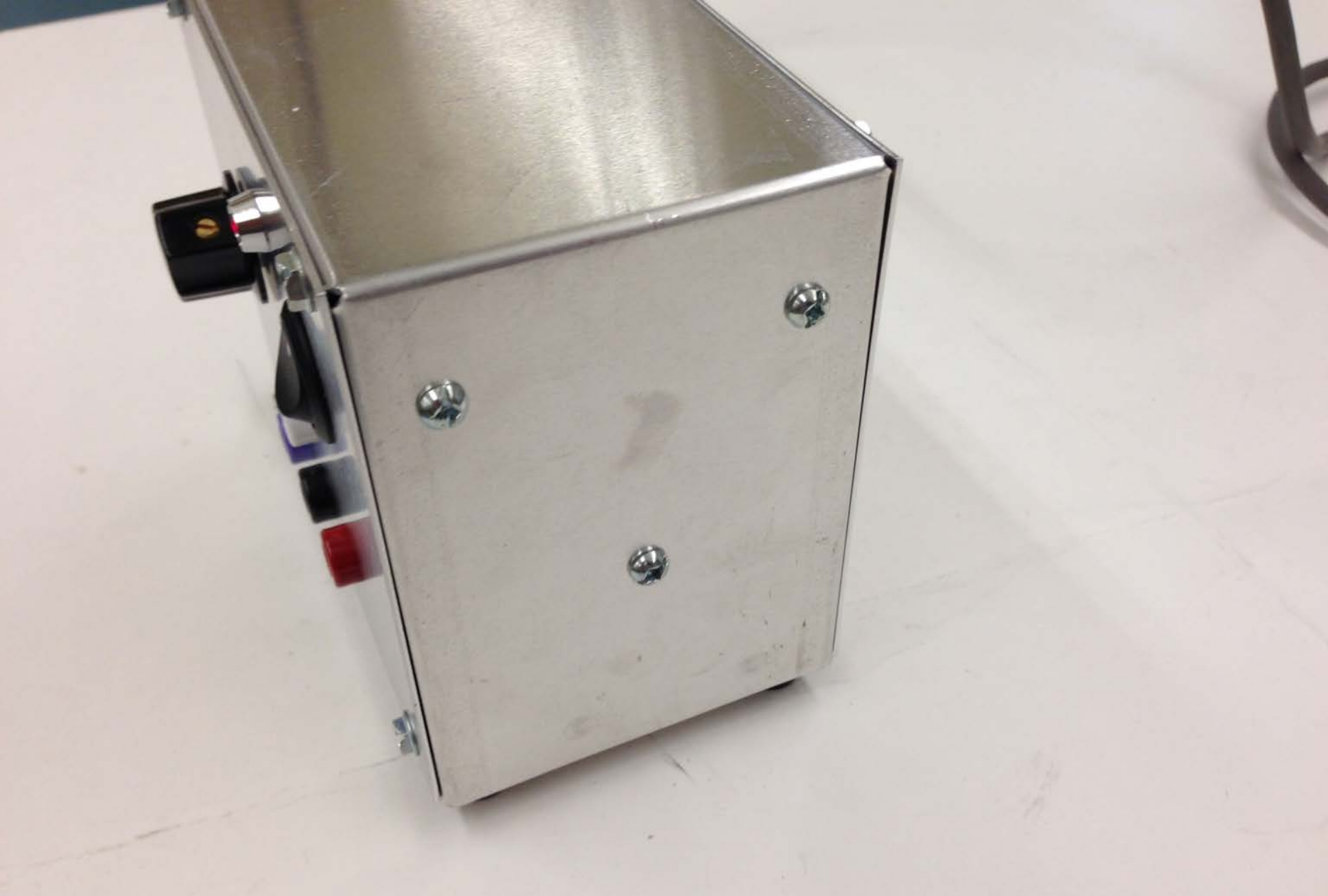
- With exception of fastening the rear panel to the chassis, the DC Power Supply is complete.
- Arrange for the instructor to inspect the unit **before** attaching the rear panel.
- Attach the rear panel to the chassis using four sheet metal screws (supplied with cabinet) after the inspection is done.



Completed DC Power Supply – Front View



Completed DC Power Supply – Left Side View



Completed DC Power Supply – Right Side View

Completed DC Power Supply – Rear View

Completed DC Power Supply – Bottom View

Cabinet Assembly

Congratulations!

This concludes the manufacture of a DC Power Supply unit at BCIT.

Power Supply Specifications

Parameter	Specification
Input voltage	$120V_{rms}$
Output 1	+5V, 1A, fixed
Output 2	-15V, 1A, fixed
Output 3	+15V, 1A, variable

*Outputs may be configured in series to obtain higher voltages

Perform a final test on the completed unit using the Acceptance Test document.