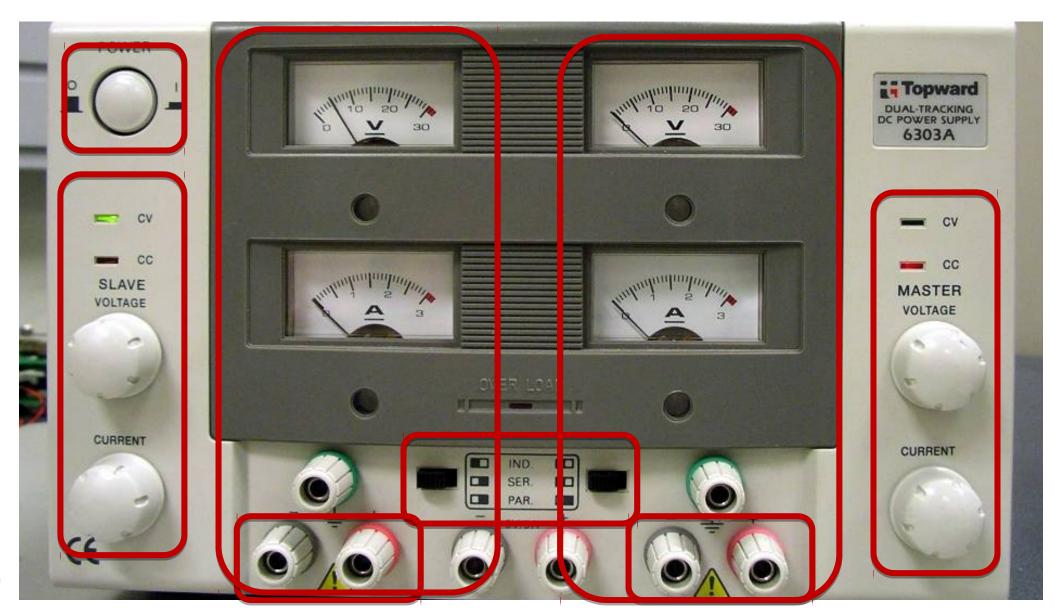
### **Equipment - Power supply**



### **ENGINEERING**





#### **ENGINEERING**

## **Equipment - Power supply**

- Power supply generates a constant DC voltage.
- UG labs power supplies are Dual tracking (Master & Slave)
- It can be set up in 3 different mode:
  - Independent: Master and slave can be used independently to generate voltages.
  - Serial: Output voltage twice set master output voltage while max output current same as the master setting value
  - Parallel: Max output current twice set master current while the output voltage is the same as the master setting value.
  - No matter which mode is set, 5V/5A supply is independent and generate 5V at up to 5A.

Note: The earth port is connected to the power supply chassis, so don't use it as ground for your circuit.



#### Modes:

Independent up to 30V,3A

Serial up to 60v,3A

Parallel up to 30V,6A



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# **Exercise: Power supply**

- 1. Disconnect the cables, turn knobs anticlockwise as far as they will go: easy way to ensure no damage
- 2. Select the mode (commonly Independent)
- 3. Power up and make sure all the needles show 0 and red CC light is on.
- 4. Turn the current adjustment knob slightly clockwise until the CC light goes off and CV light goes green.
- 5. Select the desired voltage (5V) by turning the voltage knob clockwise.
- 6. Connect the leads to ports and connect other side of leads (Red and Black leads) together.
- 7. Turn the current knob clockwise and set 0.5A (500mA): CC (red) light still on
- 8. Separate the black and red lead. The green CV light should be on and red CC should be off.



For all devices in the labs:

Black lead colour: Negative

Red lead colour: Positive