# ELT 101: Basic Electricity: AC/DC

## LAB 2-1: Introduction to lab trainers

NAME _____

DATE _____

**Objectives**

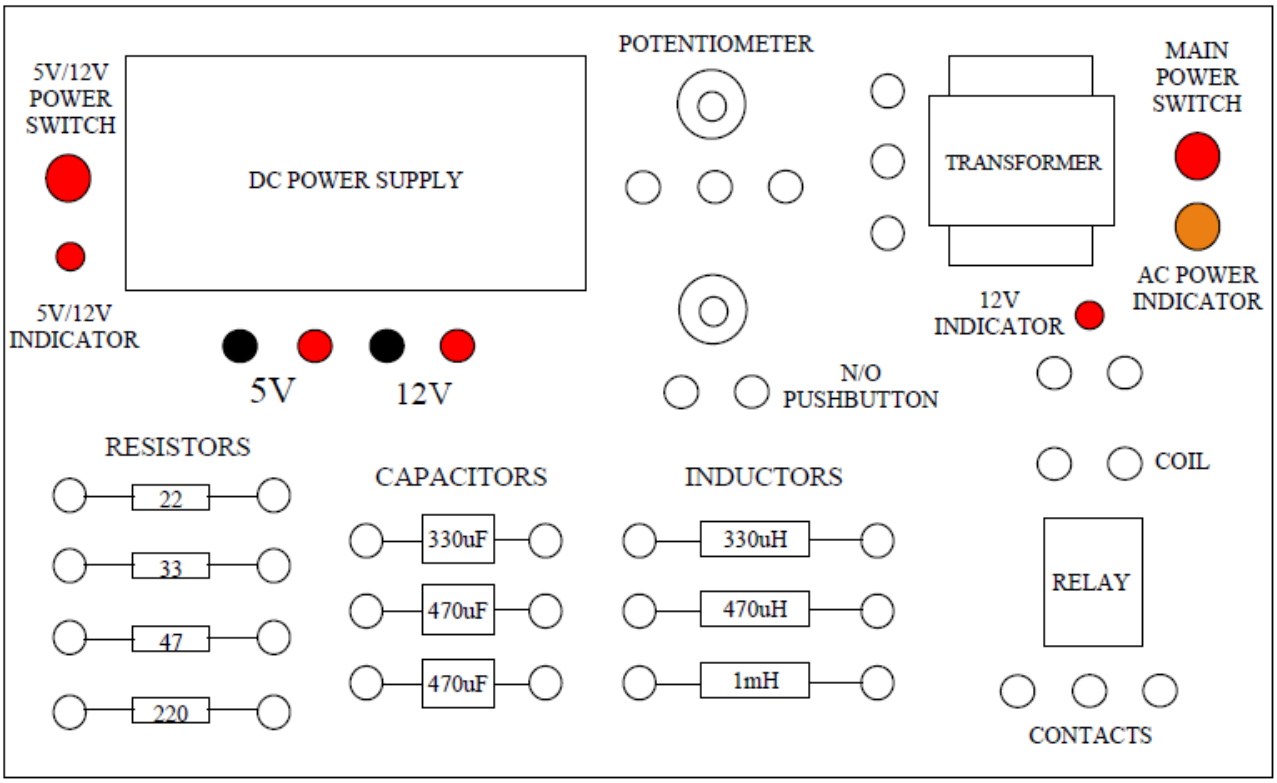
1) Familiarize yourself with the electrical lab trainers
2) Power up the trainer
3) Power up the DC power supply
4) Build a simple circuit

**Equipment and materials**

1) Safety Glasses
2) Electrical trainer
3) Jumper cables

**Procedure 1: Get familiar with the trainer**

1) See the illustration below for the general layout of the trainer.



2) Note the location of the following:

Power cord

Main power switch

5V/12V power supply

5V/12V power switch

(4) resistors: 22, 33, 47 and 220 ohm

(3) capacitors: 330uF, 470uF, 470uF

(3) inductors: 330uH, 470uH, 1mH

(1) 5K potentiometer

(1) 12V relay

**Procedure 2: Power up the trainer**

1) Make sure the main power switch and the 5V/12V power switches are in the OFF positions.

2) Plug the power cord into a receptacle.

3) Turn on the main power switch.

4) The 120V power indicator should light; if it doesn't contact your instructor.

**Procedure 3: Power up the DC power supply**

1) Flip the 5V/12V power switch to the ON position.

2) The 5V/12V power indicator should light; if it doesn't contact your instructor.

3) Turn the 5V/12V power switch off.

**Procedure 4: Build a simple circuit**

1) Using the jumper leads supplied, connect the 12V output to the 12V indicator.

2) Flip the 5V/12V power switch on.

3) The 12V indicator you connected to the power supply should light; if it doesn't contact your instructor.

4) Turn off all power and disconnect the power cord; stow the trainer and leads as directed by your instructor.

****** end of lab 2-1 ******