## INDT 100 Lesson 5

**Week #:** 3 Lesson 5  
**Subject:** Power Supplies  
**Prepared By:** Zack Jacobson

### Overview
Power generation

### Purpose
Introduction to Portables and AGE….

### Objectives
Skills/information that will be learned.

| Realize power comes in different forms  
DC sources: Chemical, Generator, Solar  
AC: Inverters, Alternators |

### Information
(Give and/or demonstrate necessary information)

| Ch. 22 is a start.  
Discuss battery and testing  
Generation break down a generator  
Break down an alternator  
Discuss Faraday’s law of induction. |

### Teacher’s or other reference

| Emf=NABSine(wt)  
EMF=volts  
N=turns of wire  
A=circle area of wrapped wire  
B=Mag field  
Wt=position (Note if position changes with time?...More Emf) (Divide by R we have I. Multiply ExI we have power... |

### Verification
(Steps to check for student understanding)

| Show Them sine waves. Make a small generator and have it run |

### Verification
(Steps to check for student understanding)

| Have them hook two generators (motors) together have one run the other... Have them rectify an A/C output. Stepper motors are good here too... |

### Activity
(Describe the independent activity to reinforce this lesson)

| A great Lab opportunity |

### Summary

| Additional Notes |