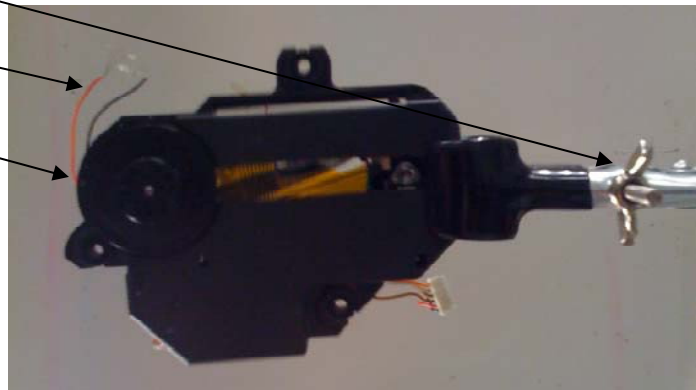


Physical Science Lab Setup

1. Remove the motor assembly from a CD player. Several wires will be attached, but most will have a black and red wire. Disconnect the wires from the circuit board. Strip the wires.
2. The red and black wires are the power supply wires to the motor. These wires will be connected to a voltmeter.
3. Attach the motor assembly to a ring stand and use a ring clamp to attach. Ensure the assembly is free to rotate when the CD and the rotor blade assembly (designed and built by the students) is attached to the motor.



4. Closeup of the
 - a. Clamp
 - b. Wires
 - c. Motor



5. Attach the voltmeter to the red and black wires. Set the voltmeter to DCV and to the setting to register the best value for reading millivolts. This may be 200 mV.

6. A digital or analog meter can be used. The purpose of either is to measure the voltage. Either must be able to measure in the millivolt range.



7. Attach the CD to the motor and ensure that it can spin freely without hitting the clamp, ringstand or wires. Fan is placed in front of this assembly. Students will mount their blades onto the CD and attach to the motor for measurement by the judge.

