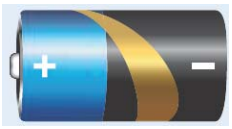
(U1) ELECTROMECHANICS WORKSHOP ACTIVITIES

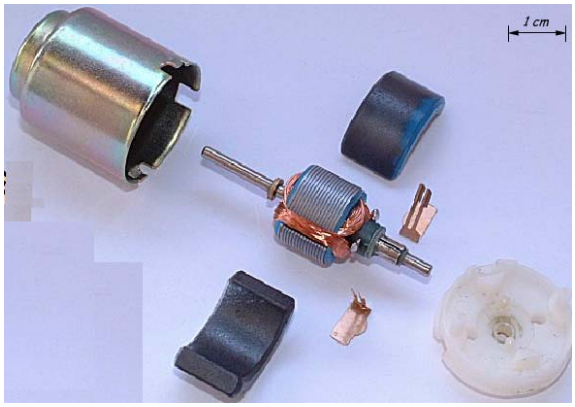
1 NAME AND SURNAMES:			Group:		
2 NAME AND SURNAMES:					
Day/Date	**Signatures**		**Day/Date**	**Signatures**	
01/	**Name1:**	**Name2:**	02/	**Name1:**	**Name2:**

Building a simple Motor

1. **Materials and tools**: enamelled copper wire, 1.5 volt-battery cell, 2 safety pins, a magnet, a rubber band and a pair of scissors. Identify these materials in the table below (0,5 points):

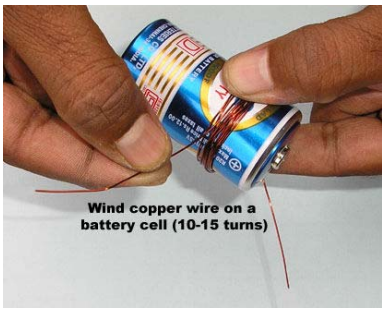

2. **Parts of a motor**. Identify the parts of an electric motor: magnets, commutator, armature, axle (shaft), brushes and case (enclosure) (2x0,6=1,2 points):

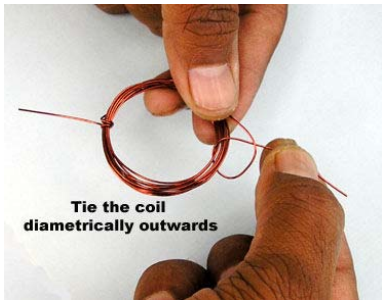


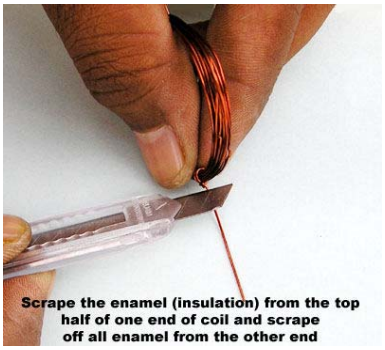
3. Definitions of the motor parts. Identify them (armature or rotor, power supply, axle, brushes, commutator, stator or permanent magnets) (0,7 points):

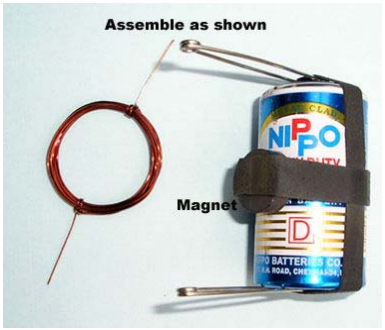
- A rotating machine that transforms electrical energy into mechanical energy:
- A DC (direct current, like the electricity from a solar cell, or dry cell "batteries")
- Mechanical energy from the motor makes this part to do work:
- The part of the motor that stays still, or stationary (the magnets are usually in this part, but the wire winding might be instead):
- The moving part of the motor, usually with windings of wire in coils:
- Attached to the axle, it lets the electric field of the electric current "flip" changing the direction that the electrons flow:
- Metal or carbon connections between the commutator and the armature:

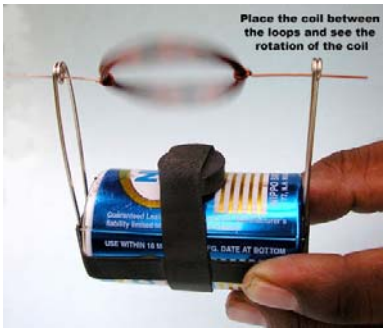
4. Build your motor (wind, wrap, tie, scrape off, assemble) (2x1+4=6 points :

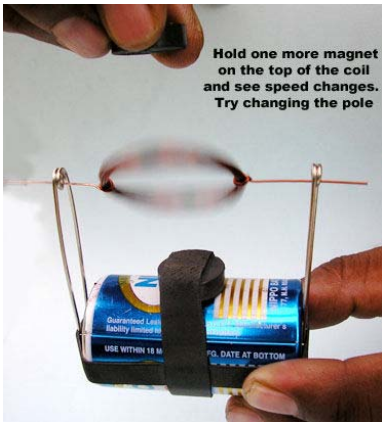












5. Record a video and upload it to **padlet.com/tech_tpr/tprpt_u1** (1,6 points)
6. Extra activity: different motors (1 point). Design your motor or select one