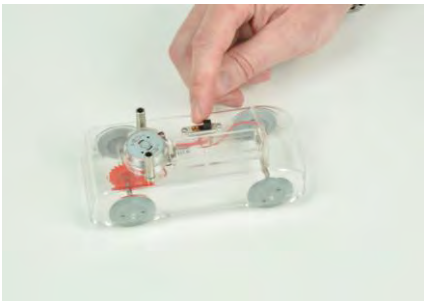
ENERGY DEMAND OF A SMALL ELECTRICAL CAR

AES 2.2

You might know battery-powered (remote controlled) model cars. Do small and bigger models need the same amount of energy? Do cars need the same amount of energy when driving in hilly terrains (for example, on grass or sand) and driving on the street?

Experiment:

- Slide the switch of the electric car in forward position



- Connect the hand generator with its cables to the car
- Turn the crank



Result:
The car drives.

Physical explanation of the energy conversion:
Mechanical energy (crank) gets converted into electrical energy (generator).
The generator drives the engine of the car.
The electrical energy gets then converted into mechanical energy (movement of the car) again.

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