

# STEM Education for Sustainable Development

SCIENCE ON STAGE  
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w Lesznie



## Thermal electric current generator

The main goal was to create a thermal generator of electricity. To create our project we needed: a water cooler (2 pieces), a water pump, a Peltier module (6 pieces), a heat sink (2 pieces) and parts necessary to prepare the structure (such as plywood, threaded rods, nuts, washers). One of the key elements was the Peltier module, a semiconductor element made of two thin wafers.

In the cells we use there is the Seebeck phenomenon. It is associated with the generation of electric current in a circuit composed of two different metals or semiconductors when their connectors are at different temperatures. Heat is supplied by heating radiators, which are in direct contact with the cells, using burning candles. The other side of the cells is cooled with water flowing through special cooling units. The low temperature of the water is maintained by ice cubes.



Project creators

