



MAKING A VACUUM CLEANER USING THE STEM EDUCATION SYSTEM IN STUDENTS' LABORATORY CLASSES

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Abstract

STEM this — S – science, T – technology, E – engineering and M – mathematics. When we translate from English into English, this is how it happens: natural sciences, technology, engineering, art and mathematics. We need to realize that these trends are becoming the most popular in the modern world. On this basis, today the STEM education system is developing as one of the main trends.

Keywords: competence, experimentation, STEM, electrical chain, industry, element.

Introduction

Purpose of the work: to learn how to make a vacuum cleaner using the STEM education system.

Required Equipment			
T/R	Name	Image	
1.	Tok manbai (batareya)	VARTA Western Western	
2.	Metalware	FLA	
3.	Empty plastic container		
4.	Manager Key		
5.	Small Voltage Electric Motor		





6.	To'rli meets	
7.	Thermal yelim	
8.	Skotch lentation	vero W

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Theoretical part

Through STEM education, pedagogy is a combination of engineering and mathematics, natural sciences and technologies based on the integration of innovative thinking and new technologies for students in higher education institutions, connecting project and interdisciplinary approaches.

Advantages of STEM education: critical thinking, the application of scientific and technical knowledge in everyday life, active communication and teamwork, increasing interest in technical science, creative and innovative approaches to projects, reading and career harmony. The main purpose of STEM education is to demonstrate students' ability to work in knowledge and inventive solutions, research services and practical formats.

A vacuum cleaner is a machine for cleaning dust and contaminants from surfaces due to absorbed air flow. Dust and pollution should be collected in a powder collector and removed from it regularly. The first vacuum cleaners were bred in the United States in 1869.

An electric broom can be a desirable household (including a car shining from a cigarette lamp) and industrial, portable and stationary

The electric vacuum cleaner is 100 years old and for obvious reasons has become an indispensable homemade device for many. Current control engine performance. The engine is attached to the fan, the ventilator blade has a certain angle, just like the airplane's vintage slag. When a fan blade rolls, it pushes the air into the exhaust port. When the air particles are moved forward, the particle density in front of the fan increases and, accordingly, the air pressure increases, while the particle density behind the fan decreases. The decrease in pressure behind the fan is a decrease in pressure in the straw when you drink the drink. The pressure behind the fan is lower than the pressure outside the vacuum cleaner, the ambient pressure. This creates an absorption power or partial vacuum in the vacuum cleaner.

The main components of the modern vacuum cleaner are pollinator, dust collection bag, hose and nozzle of various shapes. The machine inside the electrical grid, after working at high speed, converts the vacuum cleaner into an internal fast vacuum cleaner, the internal pressure





is much lower than the external air pressure, the difference in air pressure, the dust and dirty stuff as airflow into the vacuum. the cleaning barrel, after the filter of the powder bag, the dust dirt in the powder bag, the air that is cleaned through the tool to escape to the room, plays the role of the cooling engine, cleans the air.

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The principle of vacuum. The fluffy, yellow hatchlings are rolled thin and can be used to keep it in winter. This can also create a high pressure difference with the outside world. Dust and laundry of the socket mouth are absorbed into the part of the request for dust with air and pass through the leaking device, collecting dust and dirt with a dust pipe.

The order in which the work is done:

1. We cut a piece of metal into a metal container.





- **2.** From a lace set, we put it in a circular circle and cut it in accordance with the ring and eat the edges.
- **3.** Install the sleeve and the small-powered electric motor into our metal container.
- **4.** To give them a battery.
- **5.** Cutting an empty plastic container.
- **6.** To feed an empty plastic container cut into a metal container.
- 7. The controller, who controls the metal container from the top, adjusts the key to cut the container and eat it by placing the key in the container.
- **8.** Collect all parts of the switcher.
- **9.** Try the vacuum cleaner.





Summary

In this laboratory exercise, students use the STEM education system, They learn how to make a vacuum cleaner with the help of manual labor. During training, they apply the knowledge they have gained in practice.

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