

**Palestine Polytechnic University**

**Collage of Information Technology and Computer Engineering**

**Project Name:**

Sanitizer Spider Robot

**Team Members:**

* Rana Mahmoud Awlad Mohammad.
* Bayan Bassam Karajat.

**Supervisor:**

* Wael Takrouri.

* Problem Description:

With the emergence of the coronavirus and widely spread around the world. It's the new coronary virus that first appeared in Wuhan, China. It is a new virus that causes SARS and some types of normal colds.

Coronavirus spreads in several ways, including transmission through direct contact with the respiratory spray from an infected person that results from coughing or sneezing, Indirect transmission by touching contaminated surfaces and tools, and then touching the mouth, nose, or eye. etc.

After research, it was found that a large proportion of people who were infected with the virus were infected by contact with contaminated surfaces. These surfaces should be sterilized periodically. In the current situation, the human is the one who performs the process of disinfection of the surfaces, and this does not guarantee the complete sterilization of all rooms because it is possible to forget to do. Here the main problem does not guarantee that the surfaces are sterilized to make sure they are free of viruses.

* Description of solution:

Due to the difficulty of performing periodic disinfection of surfaces by humans. To achieve surface sterilization, especially in public places an automated system has been designed to perform automated sterilization of the surface periodically.

The initial visualization of the automated system will be a spider robot which consists of 4 feet to move easily, and a head that contains sensors and a camera that captures and dedicate the surfaces to be sterilized and then sprayed with sterile. This robot could be used in schools and universities.

* Specific objectives to be achieved:

The main objectives of this project:

1. Ability to detect surfaces to be sterilized (Table, chair, wardrobe, etc.)
2. Guarantee periodic sterilization of surfaces.