2020 MakeX Spark Online Competition – Code for Health

The 2020 MakeX Spark Online Competition – "Code for Health" was organized from Feb to May, 2020. 250+ Chinese participating teams submitted their projects and shared their ideas about making good for health with technologies. Some of them made "Automation car for shopping" and some of them made "Intelligent diagnosis" and health assistant.

Here are some projects for your reference.

1

Project Name:

Magic Contactless Button

Project Introduction:

In 2020, the outbreak of COVID 19 interrupted our normal life. The infection of the virus is very strong and can spread through droplets and contact.

In order to avoid the infection, all the community put the tissues and plastic wrap for the people to use for pressing the lift button and I think it is not environmental-friendly. Also, it is still risky even did that. I was thinking if I can design a button for contactless. In the beginning, I was thinking to use the voice control but voice control could be affected by the environment such as noise. In the end, I chose to use an infrared sensor for replacing the traditional button. So I called Magic Contactless Button.

Project Photo

Project Video

2

Project Name:

Ultrasonic Non-contact Cargo Automatic Disinfection Equipment

Project Introduction

With the growing severity of the COVID 19, epidemic prevention materials have become a much-needed item in every city and every country. In the process of transporting goods, disinfecting the goods has become a necessary and very important step whether it is leaving the warehouse or entering the hospital. If spraying disinfectant manually is slow and unsafe, the ultrasonic non-contact

automatic disinfection device I designed can solve the disinfection problem of anti-epidemic materials in and out of the warehouse.

Press the "Spacebar" to start the device. When the ultrasonic sensor automatically recognizes the passing of the goods, use the motor to start the disinfection device to spray and sterilize the goods to ensure that the entry and exit of the goods is fast and safe. Press the "←" button, the device stops running.

Project Photo
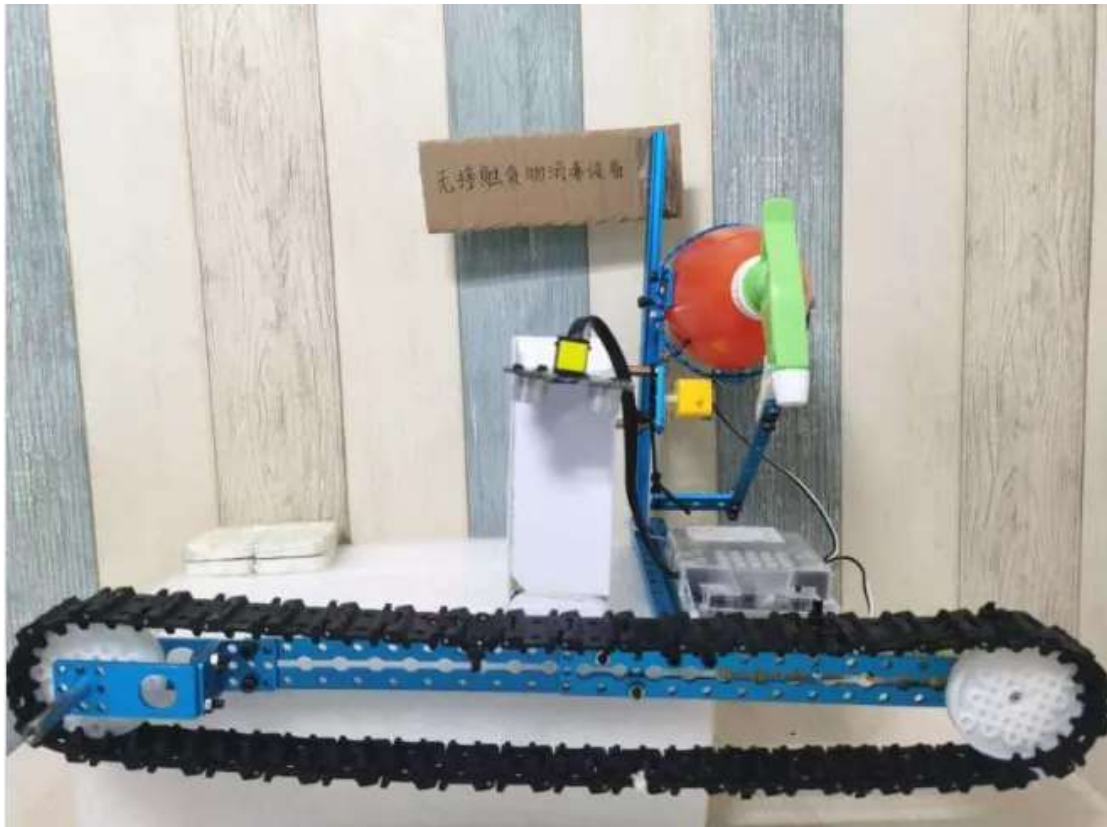
Project Video

https://drive.google.com/drive/folders/13uf7sBDb5lpJlb7KsUB3np_S7g5R6Sk9?usp=sharing

3

Project Name:

Smart Treatment System

Project Introduction:

When people get infected by the COVID 19, the people will get fever, cough and difficulty breathing. If the situation gets worst, the people may be death. In current, there is no medicine to kill the virus and everyone is trying to find a way to stop the spreading of COVID 19. So, I designed a Smart Treatment System for solving some problems. It can monitor the condition of the lungs, and can automatically activate the ventilator to mechanically ventilate the patient, thereby the patient's lung function could be recovered better. Medical personnel use the serum from the recovered person to help eliminate the virus by using the serum in the patient.

If the lungs are infected (simulated with a humidity sensor, dripping water into the measuring cup with a dropper), and the lungs stop working, an alarm is issued to alert medical personnel and turn on the ventilator (simulate mechanical ventilation with a DC motor). Medical staff can press the button to enter antiviral serum for patients (using a water pump).

Project Photo

Project Video

https://drive.google.com/drive/folders/13uf7sBDb5lpJlb7KsUB3np_S7g5R6Sk9?usp=sharing