

ANDROID CONTROLLED DISINFECTION ROBOT FOR COVID-19

AIM:

Design and Development of Android controlled disinfection robot for covid-19.

PURPOSE:

Sanitization is very important to maintain hygienic environment. Especially in Covid situation sanitization is primary precautionary thing. Doing sanitization manually is a difficult task. Doing sanitization with robot along with video surveillance is avoiding manual interaction. So here we propose solution like Android controlled disinfection robot for covid-19. This robot can be controlled by android application along with video surveillance. It has two sanitizer sprays to sanitize and those can be controlled from Android App.

DESCRIPTION:

This project includes Bluetooth (HC-05) module, which is connected to Arduino through UART interface. L293D connected to Arduino digital pins and it can control robot motor. Two relays controls two sanitizer sprays which are connected to Arduino digital pins.

WORKING:

In this project robot can be controlled from android Application and using smart phone camera we can do video surveillance. It has two sanitizer sprays and those can be controlled from Android application. This android application is customized and it has robot control, sanitizer sprays control and video surveillance in single screen. Robot direction and sanitizer status displayed on 16X2 LCD display.

TECHNICAL SPECIFICATIONS:

HARDWARE:

Microcontroller	:	Arduino Uno
Crystal	:	16 MHz
LCD	:	16X2 LCD
Bluetooth	:	HC-05
Motor Driver	:	L293d
Motors	:	DC gear motors 60 r. p.m.
Relay	:	12V DC Electromagnetic
Power Source	:	12v 2 amp Adaptor

SOFTWARE:

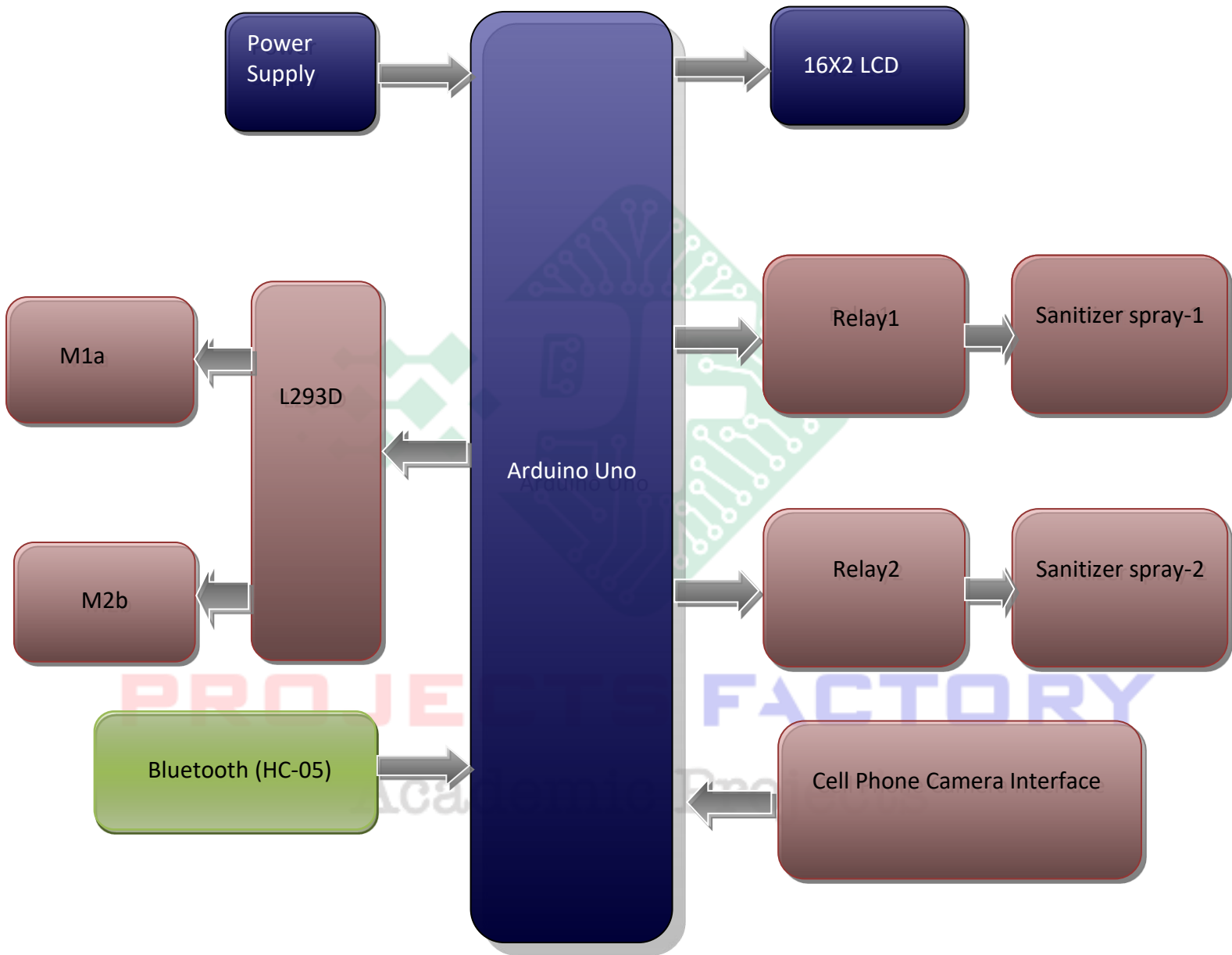
Arduino IDE
Proteus based circuit diagram

APPLICATIONS:

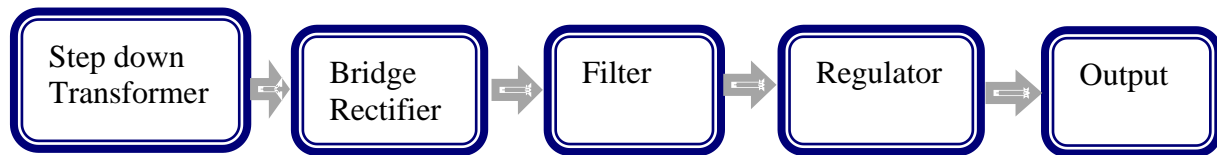
- Sanitizing Application
- Covid Applications

PROJECTS FACTORY
Academic Projects

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:



INTERFACES COVERED:

- We have covered Bluetooth (HC-05) module interfacing
- L293D Motor driver interface
- Relay interface to control sanitizer sprays.



PROJECTS FACTORY
Academic Projects