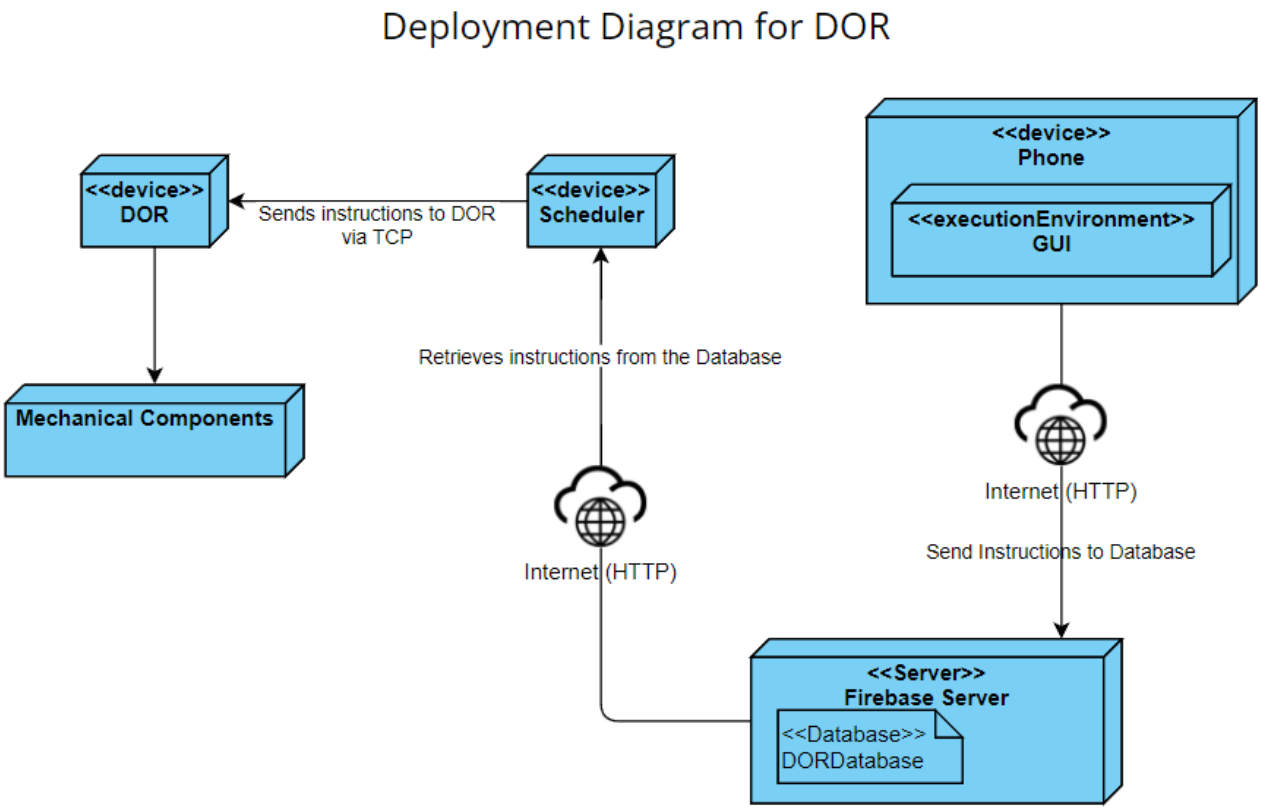
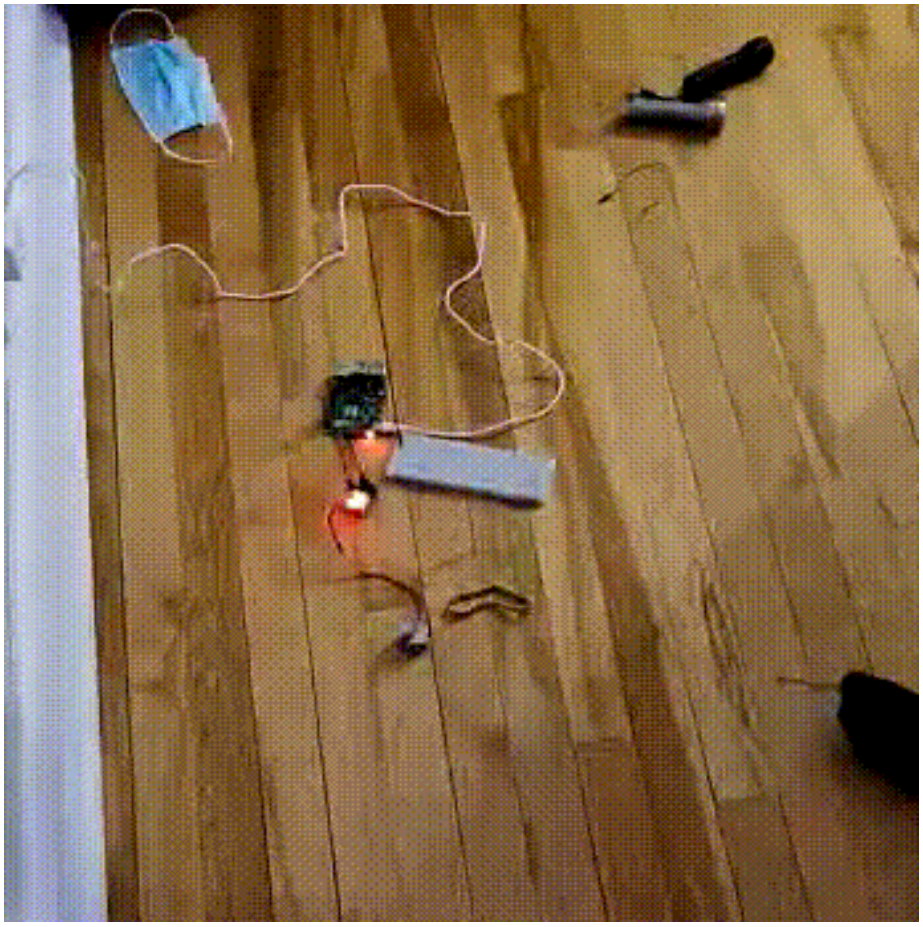
In the second demo, you will test all parts of your system, as individual parts, not as a collective system.

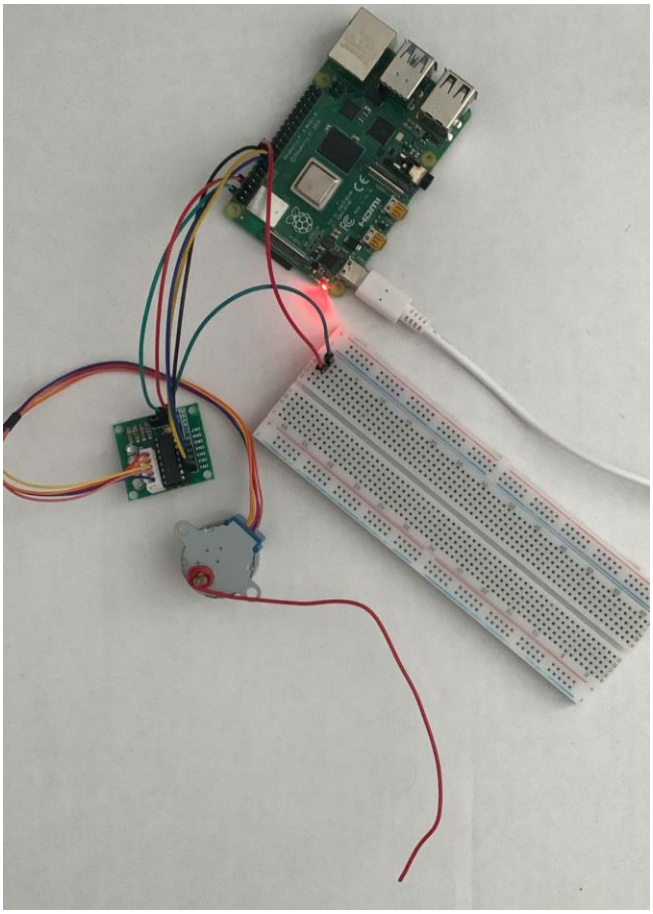
1. Motor Setup: Shows functionality of the motor and the tests required to pass.
2. GUI: Shows a simplistic overview of the GUI we will implement to connect our database and our device.
3. PiCam: Can detect the door status and send information back to user

For this demo we have 3 main component tests we'd like to showcase. Our first one is the communication with the scheduler we showed previously. This is to mimic a GUI that is yet to be created in our project. It shows that we can send, receive, and schedule instructions to the database which in turn sends it to our device



Next is the motor itself. The above video shows the connection and our tests on the motor. Our test program sees whether the motor is active and in the right pins. Once figures that out it will send an instruction to turn the motor counterclockwise twice. If it completes that, our test is successful.





Our last component and set of tests were for our PiCam. As it is situated on top of our door it will test to see how much white will be in the picture. The user will be prompted to take a reference picture of when the door is closed. This will be the standard comparison for which the device will test the status of the door with. The code will then filter out every part except white and check the color percentage of it in the picture. if a difference of 10% or higher in the percentage of white color in the picture is seen, the door status will have changed. If the percentage of white color increased, the door was opened. If the percentage of white color decreased, the door was closed.