APPENDIX A
ENVIRONMENT SETUP

To load the model onto the microcontoller, a python environment on a windows machine was setup using the following instructions:

1) Install Conda for windows using the correct download for your machine from https://docs.conda.io/en/latest/miniconda.html.

2) Using the Windows start menu, open Anaconda Prompt as an Administrator

3) Type `conda update conda` and press enter

4) Type `conda create --name rt-devs-env` and press enter

5) Type `conda activate rt-devs-env` and press enter

6) Type `conda install -c anaconda pip` and press enter

7) Type `pip install mbed-cli` and press enter

8) Download `boost_1_70_0.zip` from https://www.boost.org/users/history/version_1_70_0.html.

9) Extract all from `boost_1_70_0.zip` and copy the contents to a new folder at C:\boost

10) Run `bootstap.bat`

11) Run `b2.exe`

12) In the Anaconda Prompt type `conda develop C:\boost\boost_1_78_0` and press enter

13) Type `conda develop C:\boost\boost_1_78_0\stage\lib` and press enter

14) Download `gcc-arm-none-eabi-10.3-2021.10-win32.zip` from https://developer.arm.com/tools-and-software/open-source-software/developer-tools/gnu-toolchain/gnu-rm/downloads.

15) extract `gcc-arm-none-eabi-10.3-2021.10-win32.zip` and copy its contents to a new folder at C:\armMicrocontrollers

16) Type `mbed config -G GCC_ARM_PATH C:\armMicrocontrollers\gcc-arm-none-eabi-10.3-2021.10\bin` and press enter

17) Type `cd C:\armMicrocontrollers` and press enter

18) Copy the git repsoitory at https://www.boost.org/users/history/version_1_70_0.html.

19) Type `cd COVID_supervisory_system\top_model` and press enter

20) Plug the `NUCLEO_F401RE` board into any usb port

21) Type `mbed compile --target NUCLEO_F401RE --toolchain GCC_ARM --profile ../cadmium.json --flash`

Note** `NUCLEO_F401RE` is the name for the specific board used in this paper, if a different board is being used, that name must be replaced with the correct one