



# HOW TO UPDATE FIRMWARE RESPIMATIC 100

## STEP-BY-STEP PROCEDURE

# EQUIPMENT NEEDED

USB Cable



One end with micro-USB connector

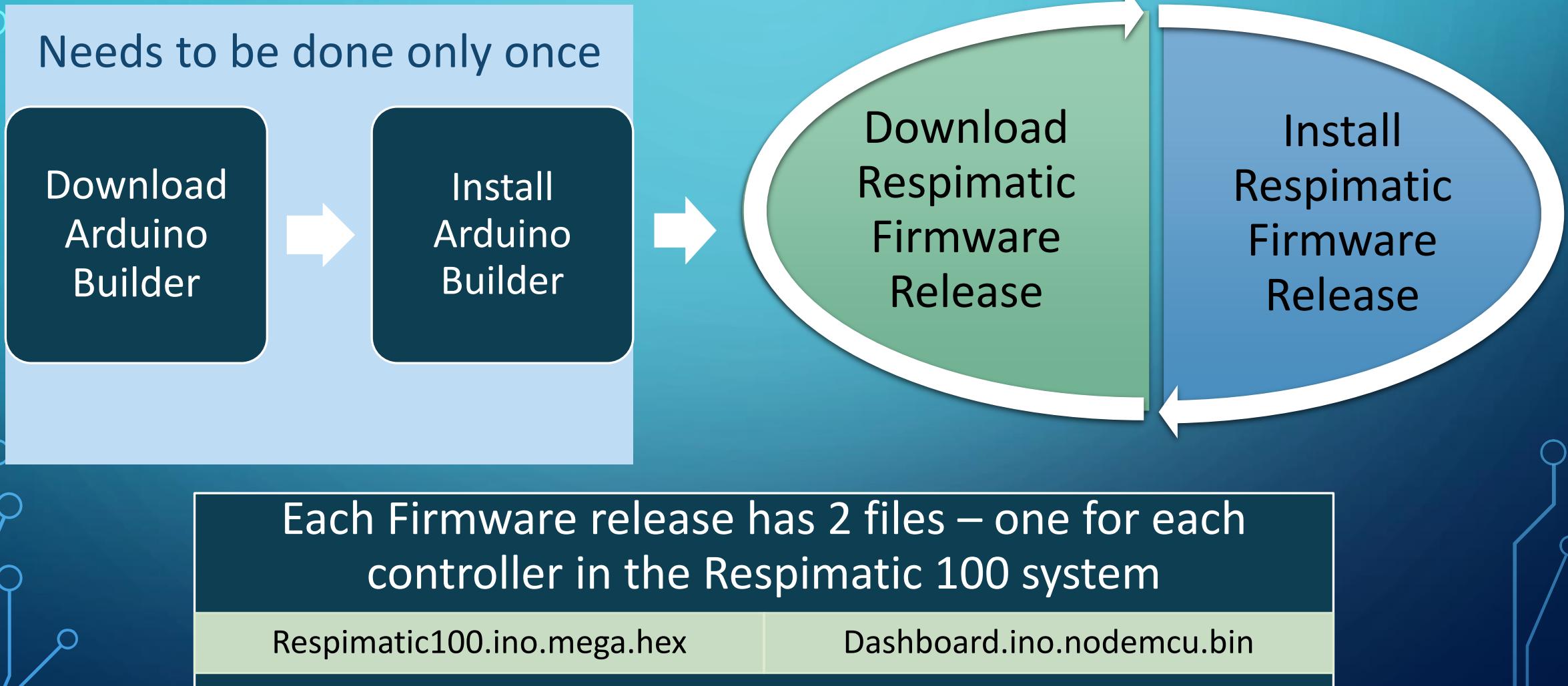
Windows Laptop



Respimatic 100



# FIRMWARE UPDATE OVERVIEW





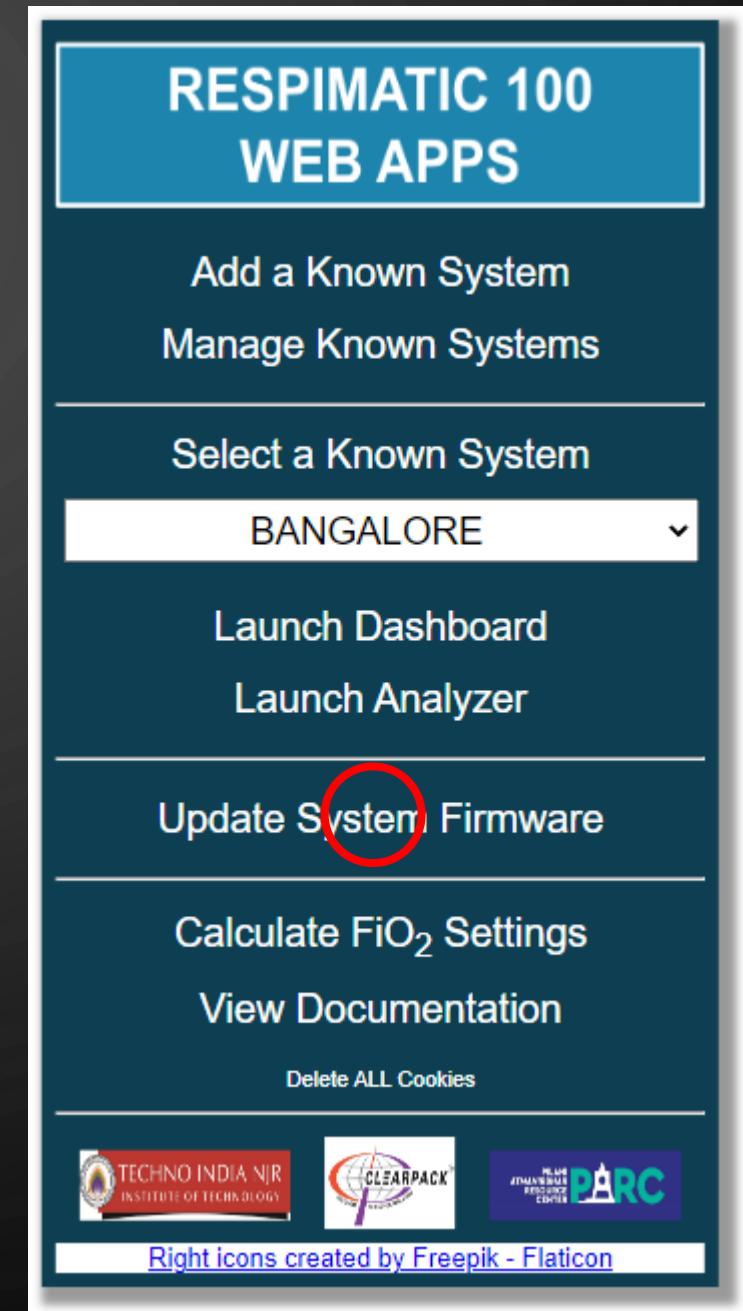
# DOWNLOAD ARDUINO BUILDER

# DOWNLOAD ARDUINO BUILDER

## STEP 1

Open URL <https://www.respimatic.com>  
in your browser

Click on  
“Update System Firmware”



# DOWNLOAD ARDUINO BUILDER

## STEP 2

Click on  
“One-time Download  
Arduino Builder”



# DOWNLOAD ARDUINO BUILDER

## STEP 3

The .exe is downloaded to your Downloads folder

Depending upon your settings, a new tab may open in your browser. Delete that tab after download is complete

Read and Dismiss the information popup





# INSTALL ARDUINO BUILDER

# INSTALL ARDUINO BUILDER

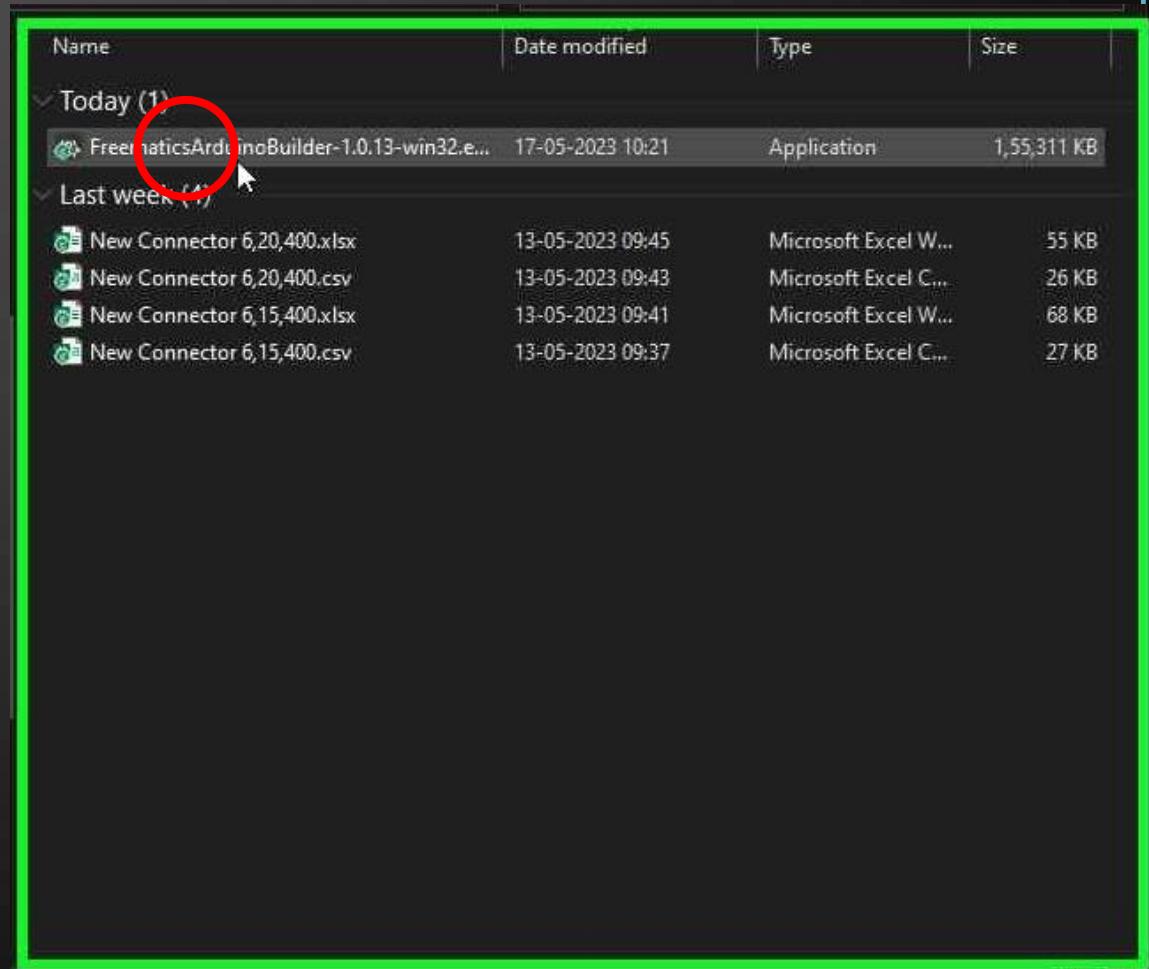
## STEP 1

Find the downloaded .exe file (in your Downloads folder)

Double Click on the .exe file to execute it

You will need admin privileges on your laptop to execute this file

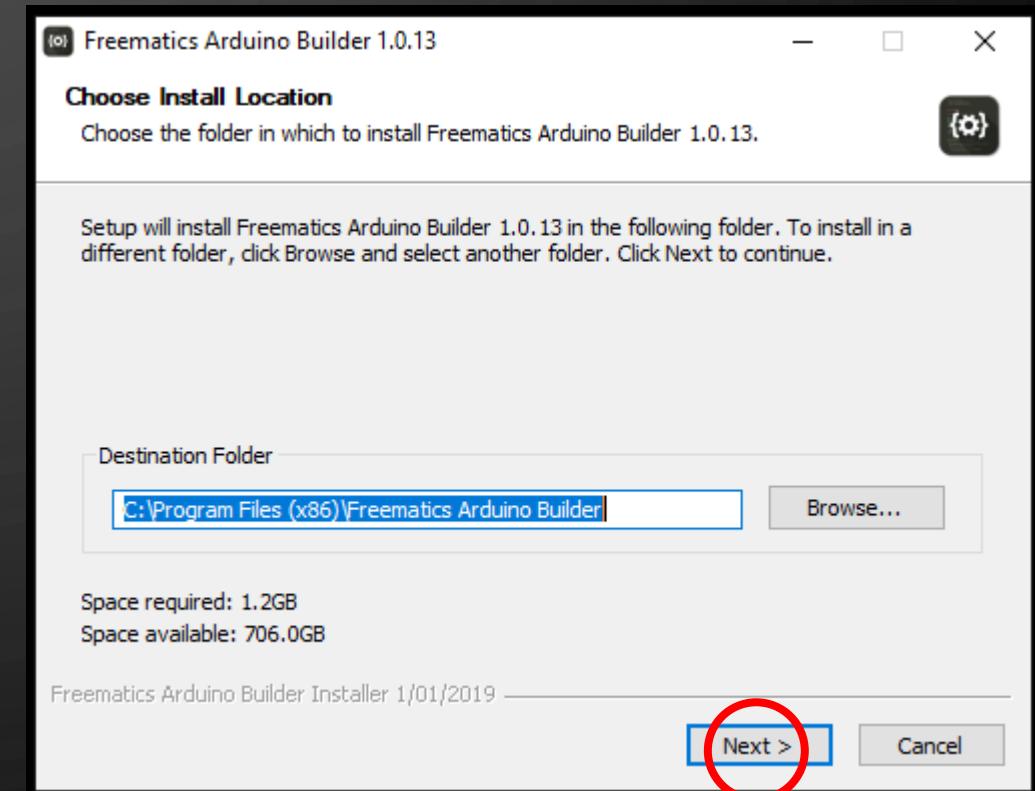
Your laptop's anti-virus software will sanitize the file automatically



# INSTALL ARDUINO BUILDER STEP 2

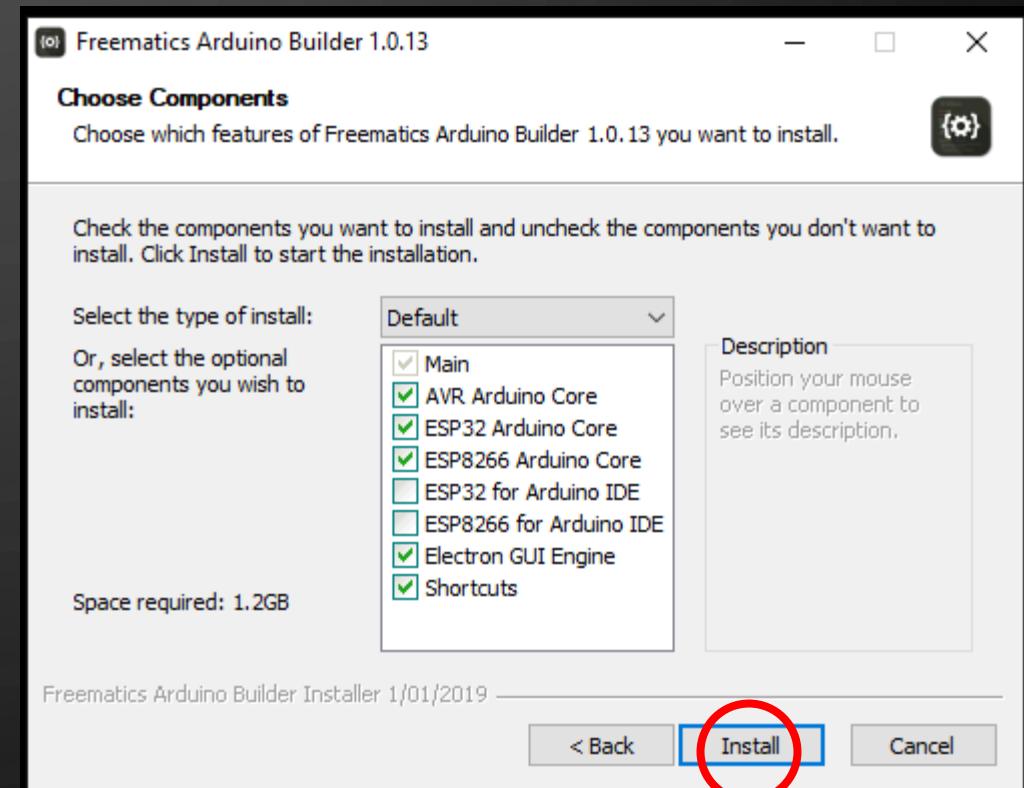
The Arduino Builder installer will guide you step-by-step

Click on “Next”



# INSTALL ARDUINO BUILDER STEP 3

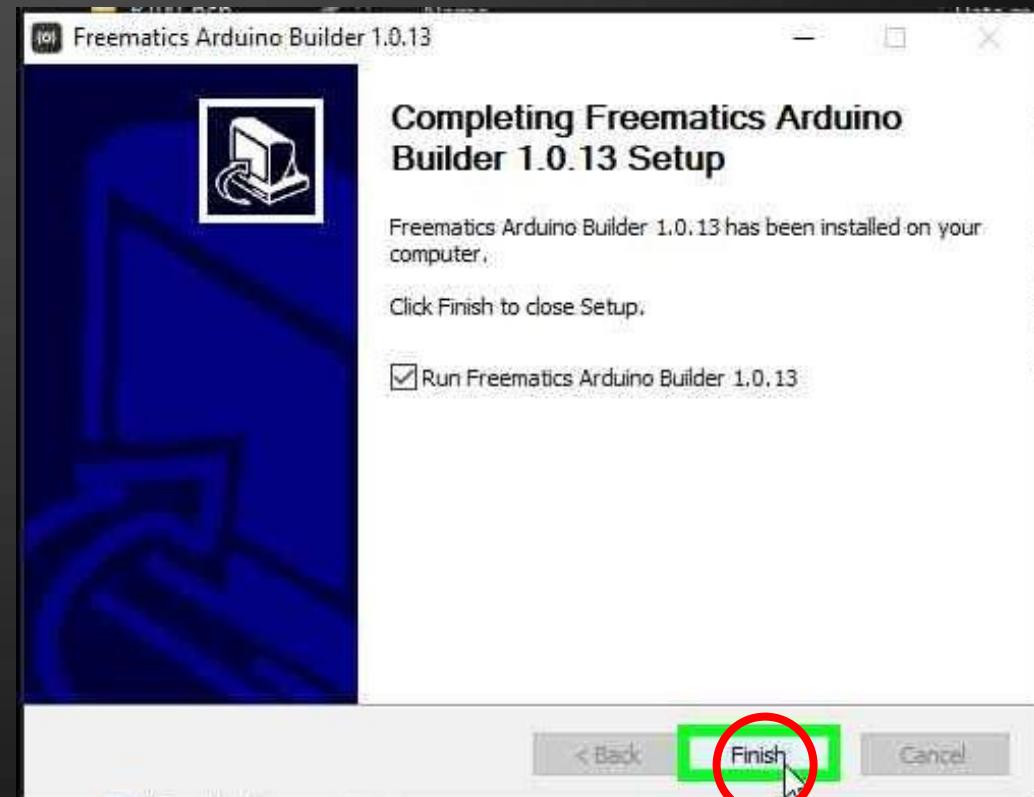
Click on “Install”



# INSTALL ARDUINO BUILDER

## STEP 4

Click on “Finish”



# INSTALL ARDUINO BUILDER

## STEP 5

Arduino Builder is installed!

You can now delete the .exe file in  
your Downloads folder





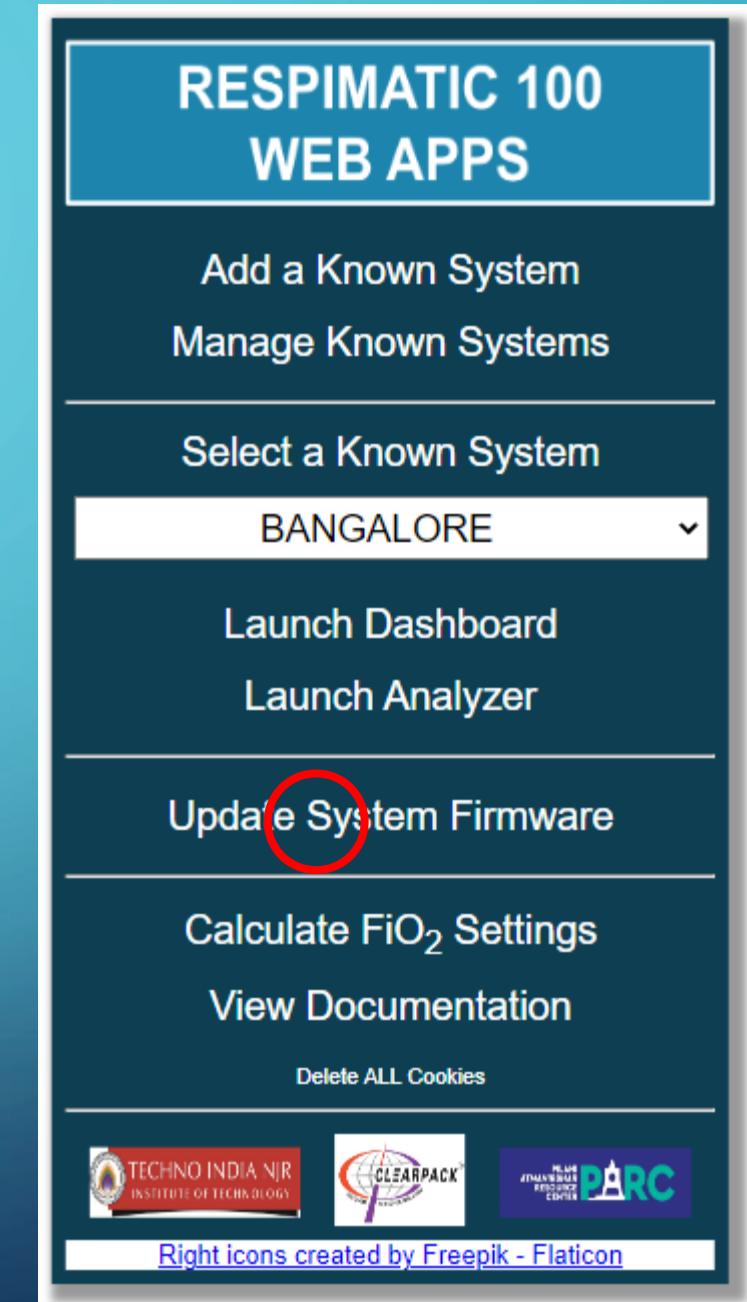
# DOWNLOAD A FIRMWARE RELEASE

# DOWNLOAD FIRMWARE RELEASE

## STEP 1

Open URL  
<https://www.respimatic.com> in  
your browser

Click on  
“Update System Firmware”



# DOWNLOAD FIRMWARE RELEASE

## STEP 2

Click on the download icon button next to the release you wish to download (1.0.1 in this example)

The screenshot shows a web-based interface titled "RESPIMATIC 100 Update Firmware". It includes a "Step-by-step Instructions" section and a "One-time Download Arduino Builder" section. Below these is a table titled "Select and Download Release". The table has columns for Version, Release Date, and Get. A row is selected for Version 1.0.1, Release Date 16-May-2023, and the "Get" button, which is highlighted with a red circle.

Version	Release Date	Get
1.0.1	16-May-2023	

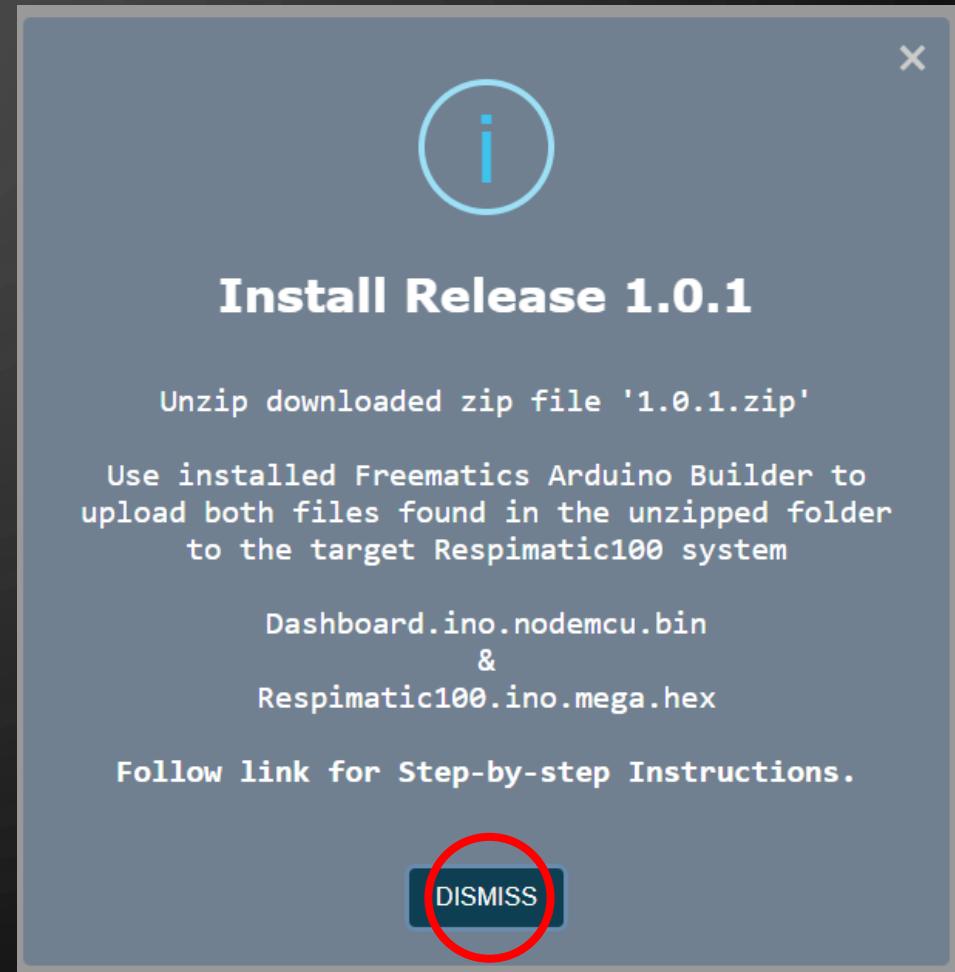
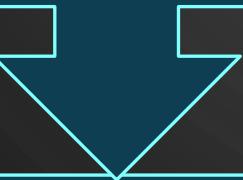
Logos at the bottom include: TECHNO INDIA NIR INSTITUTE OF TECHNOLOGY, CLEARPACK, and PARMATHAM RESOURCE CENTER PARC.

# DOWNLOAD FIRMWARE RELEASE

## STEP 3

A .zip is downloaded to your  
Downloads folder

Read and Dismiss the information  
popup

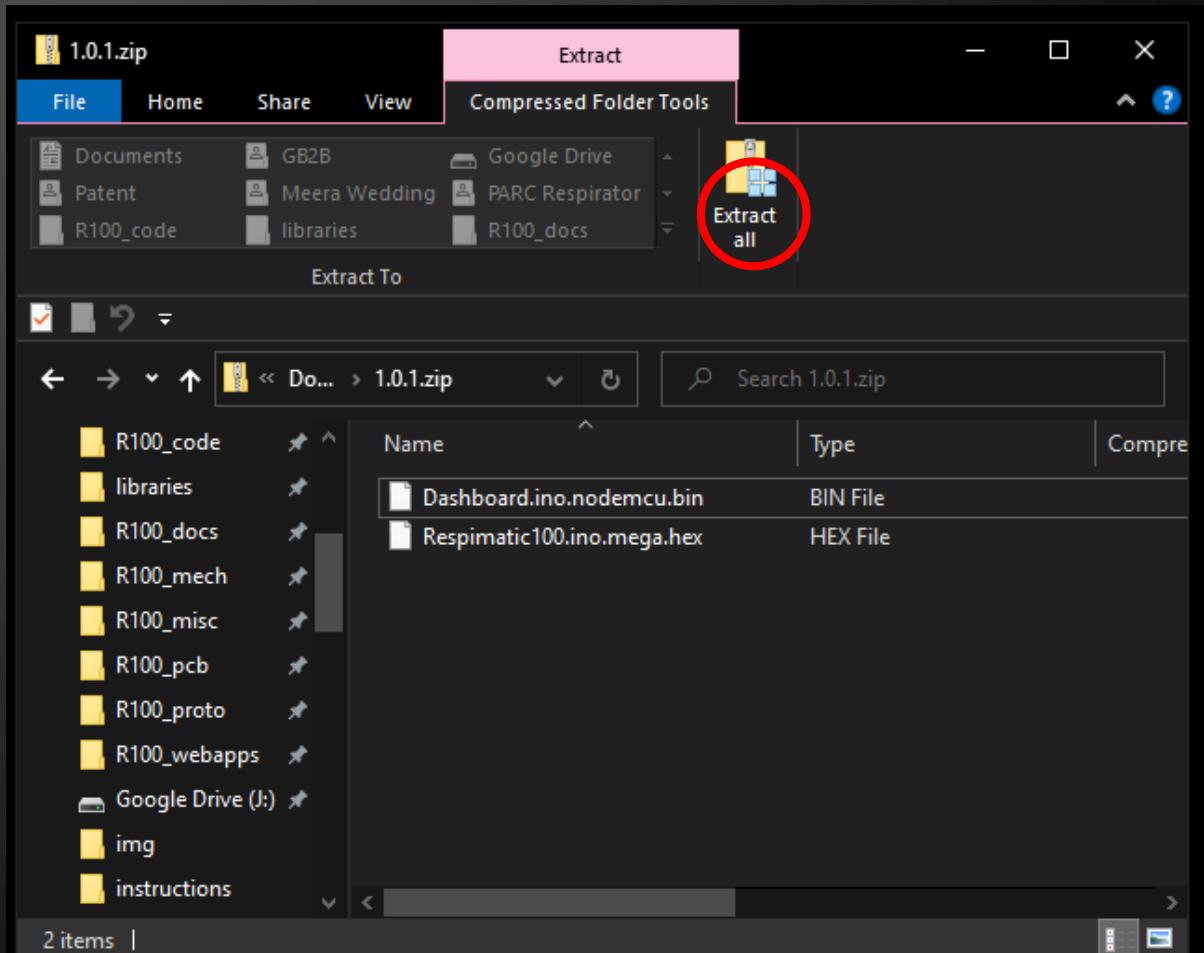


# DOWNLOAD FIRMWARE RELEASE

## STEP 4

Double click on the downloaded .zip file to open it

Click on the “Extract All” button



# DOWNLOAD FIRMWARE RELEASE

## STEP 5

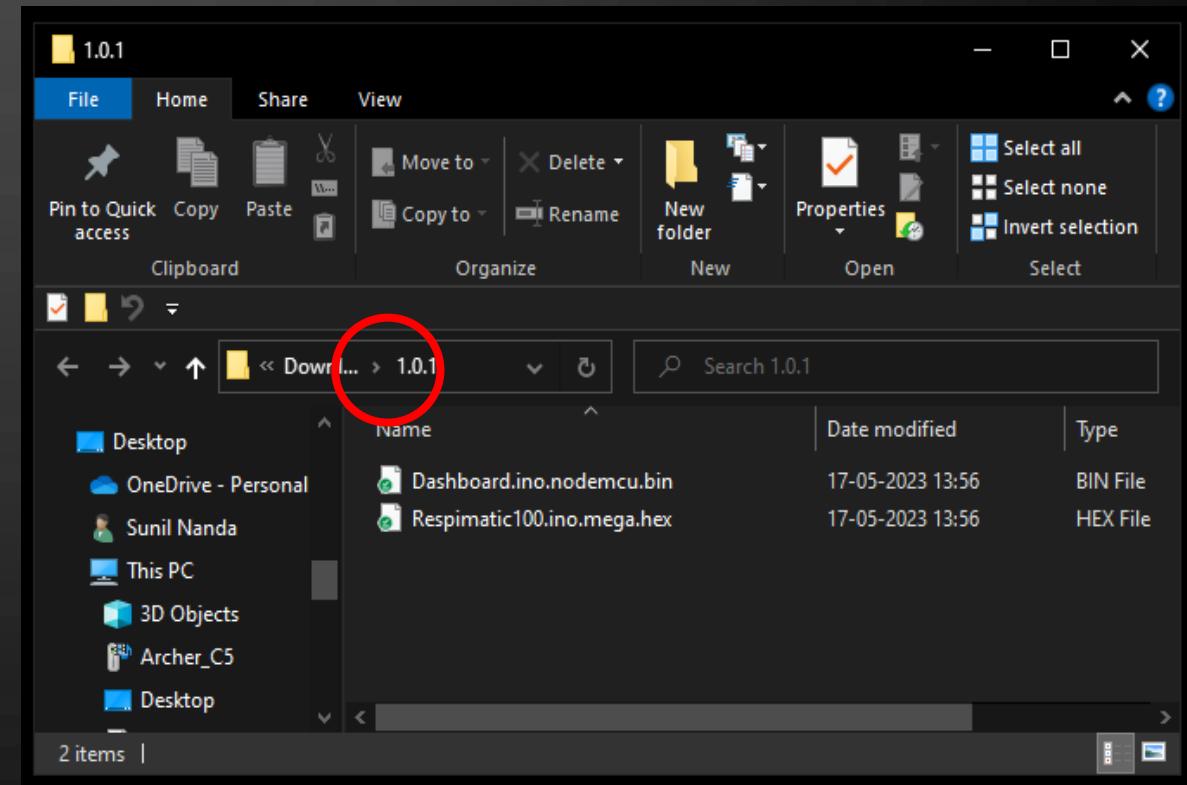
A folder with the same name as the release tag will be created

It should show two files within it

Dashboard.ino.nodemcu.bin

Respimatic100.ino.mega.hex

Release is now downloaded and ready to be uploaded to the Respimatic system





# INSTALL FIRMWARE RELEASE

# INSTALL FIRMWARE RELEASE

## STEP 1

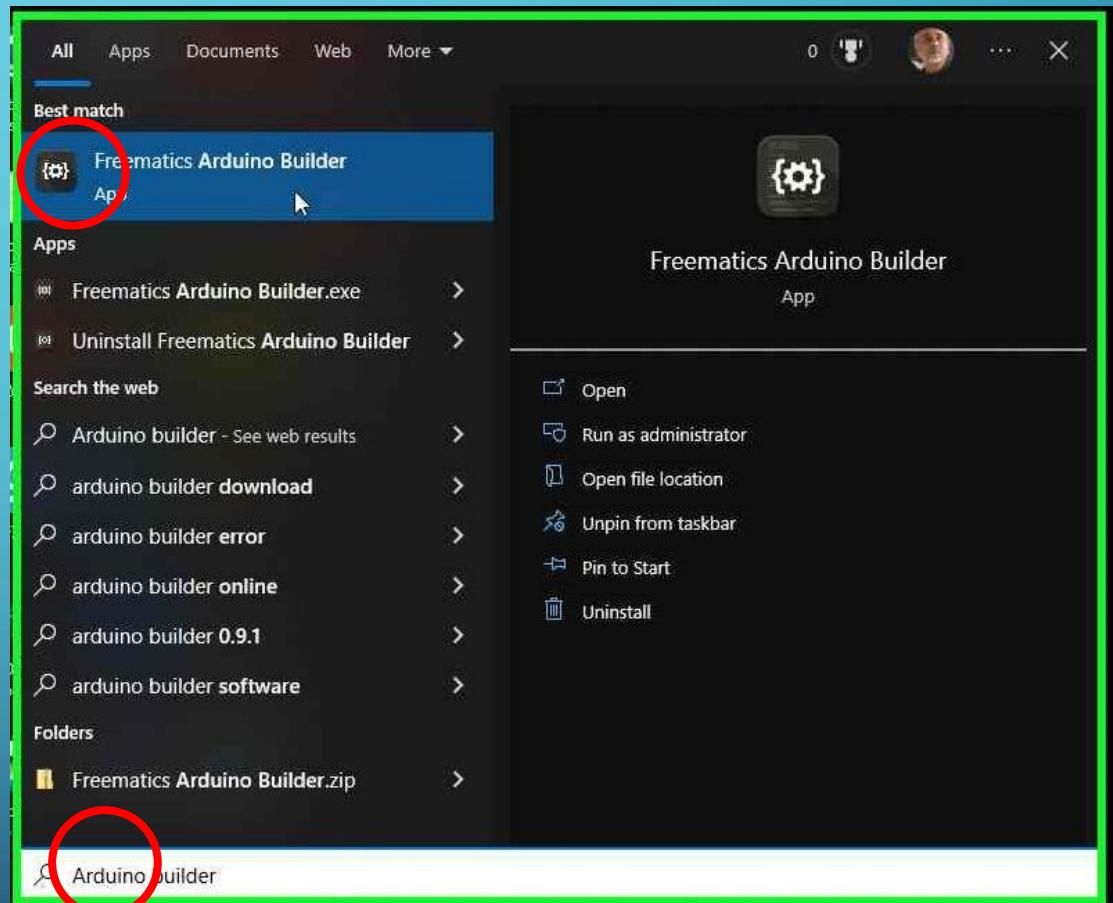
Search for “Arduino Builder”  
on the laptop



# INSTALL FIRMWARE RELEASE

## STEP 2

Click on  
“Freematics Arduino Builder”  
in the search window



# INSTALL FIRMWARE RELEASE

## STEP 3

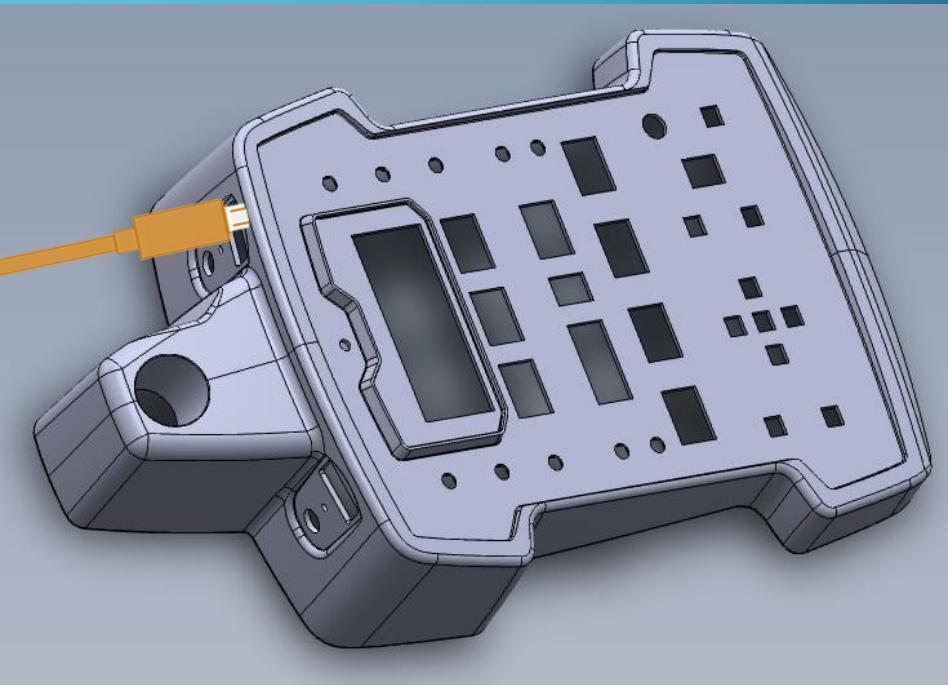
Arduino Builder app  
window will open



# INSTALL FIRMWARE RELEASE

## STEP 4

Connect laptop's USB port to the micro-USB port labelled “Controller” on the back of the control panel of the Respimatic system



# INSTALL FIRMWARE RELEASE

## STEP 5

Select “Arduino Mega 2560/ADK” from the dropdown menu in the “Target” field

Check “Verify” box

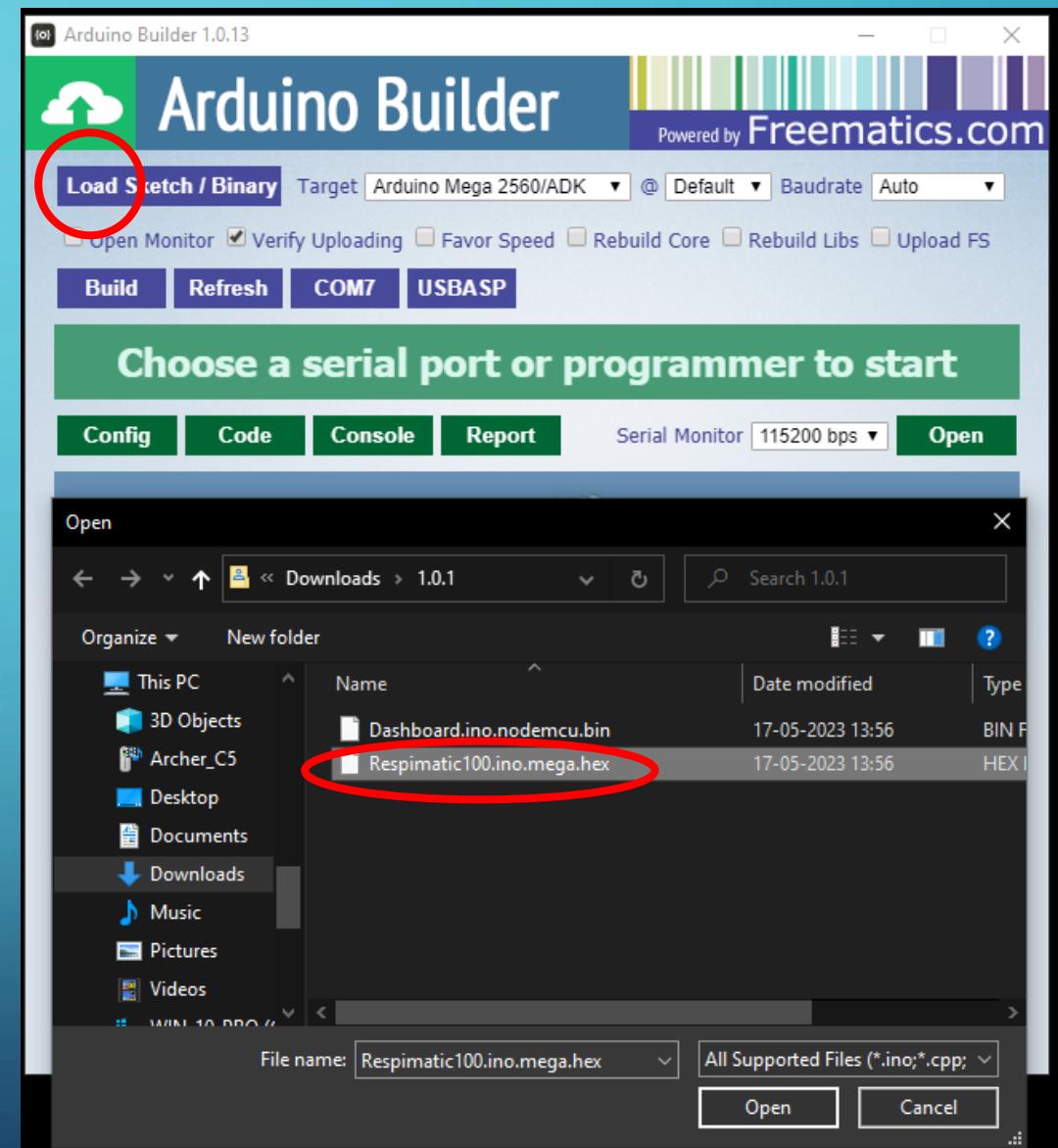


# INSTALL FIRMWARE RELEASE

## STEP 6

Click “Load Sketch/Binary” button on the Arduino Builder

Select  
Respimatic.ino.mega.hex from  
the extracted release folder

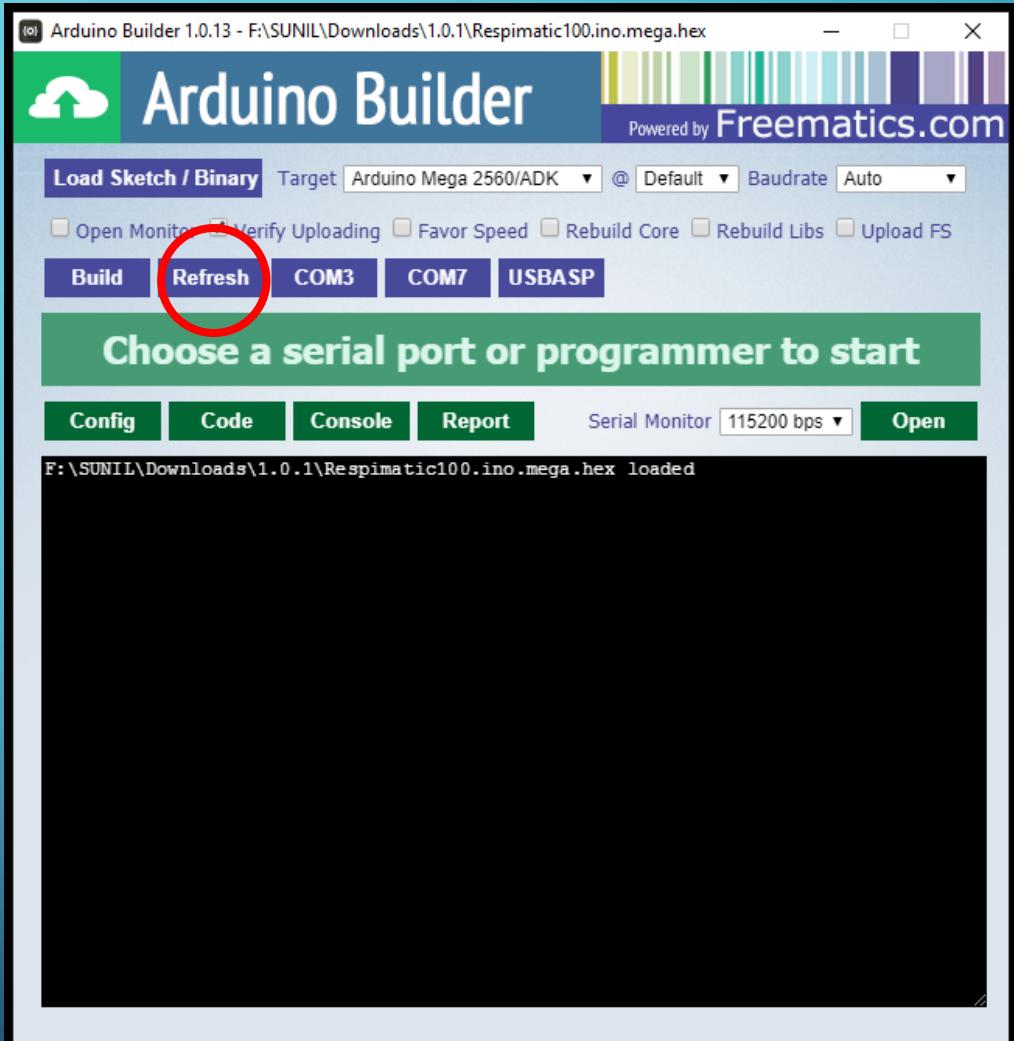


# INSTALL FIRMWARE RELEASE

## STEP 7

Check “Refresh” button on the Arduino Builder

It refreshes the list of COM ports that the Respimatic system could be connected to



# INSTALL FIRMWARE RELEASE

## STEP 8

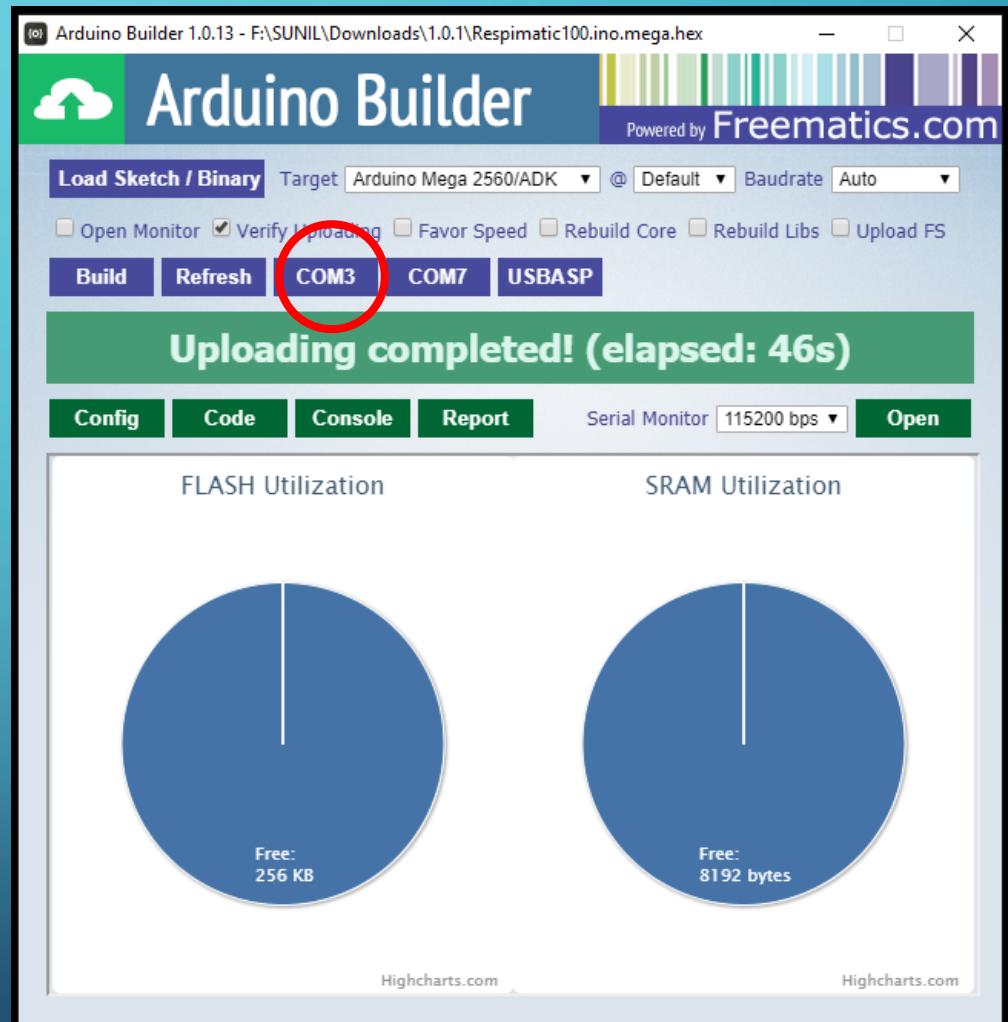
Click the correct COM port i.e. the laptop port that the Respimatic system is connected to (in this example it is COM3)



Arduino Builder will now install the selected file on the Respimatic system



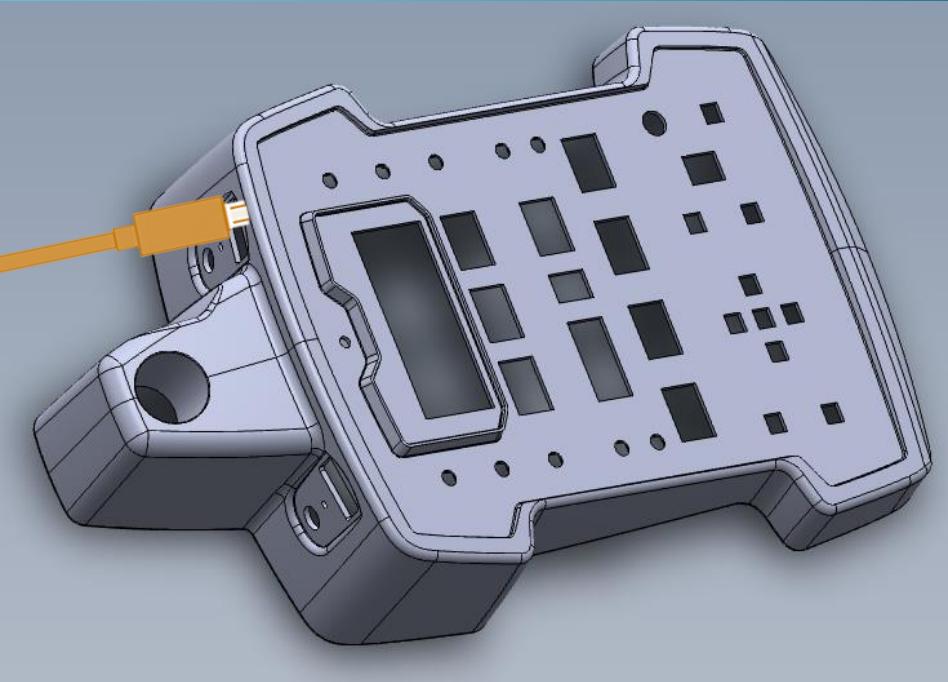
Now we need to follow a similar procedure for the other file in the release.



# INSTALL FIRMWARE RELEASE

## STEP 9

Connect laptop's USB port to the micro-USB port labelled “Wi-Fi” on the back of the control panel of the Respimatic system



# INSTALL FIRMWARE RELEASE

## STEP 10

Select “NodeMCU (ESP8266)” from the dropdown menu in the “Target” field

Check “Verify” box

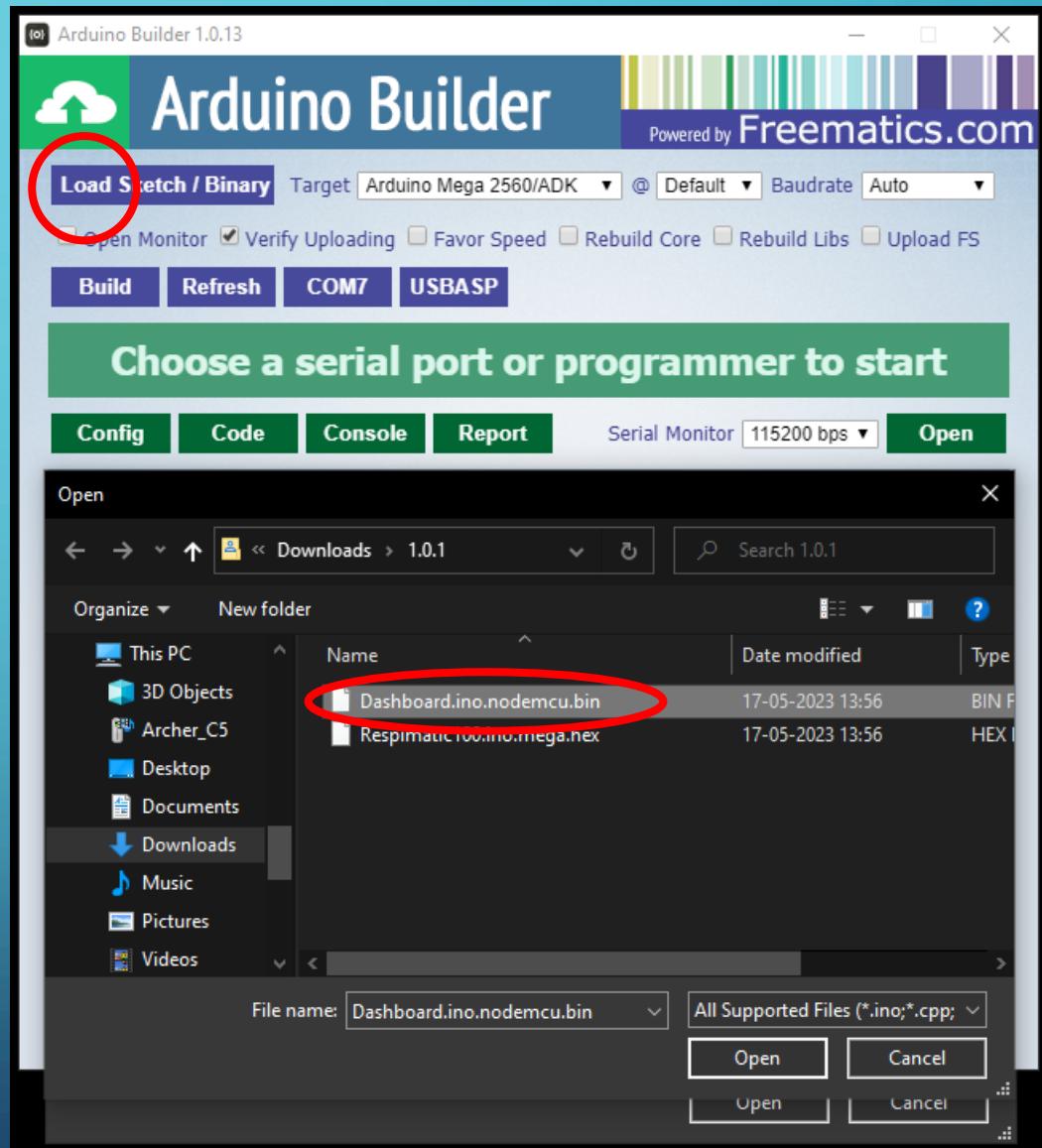


# INSTALL FIRMWARE RELEASE

## STEP 11

Click “Load Sketch/Binary” button  
on the Arduino Builder

Select Dashboard.ino.nodemcu.bin  
from the extracted folder from the  
downloaded release

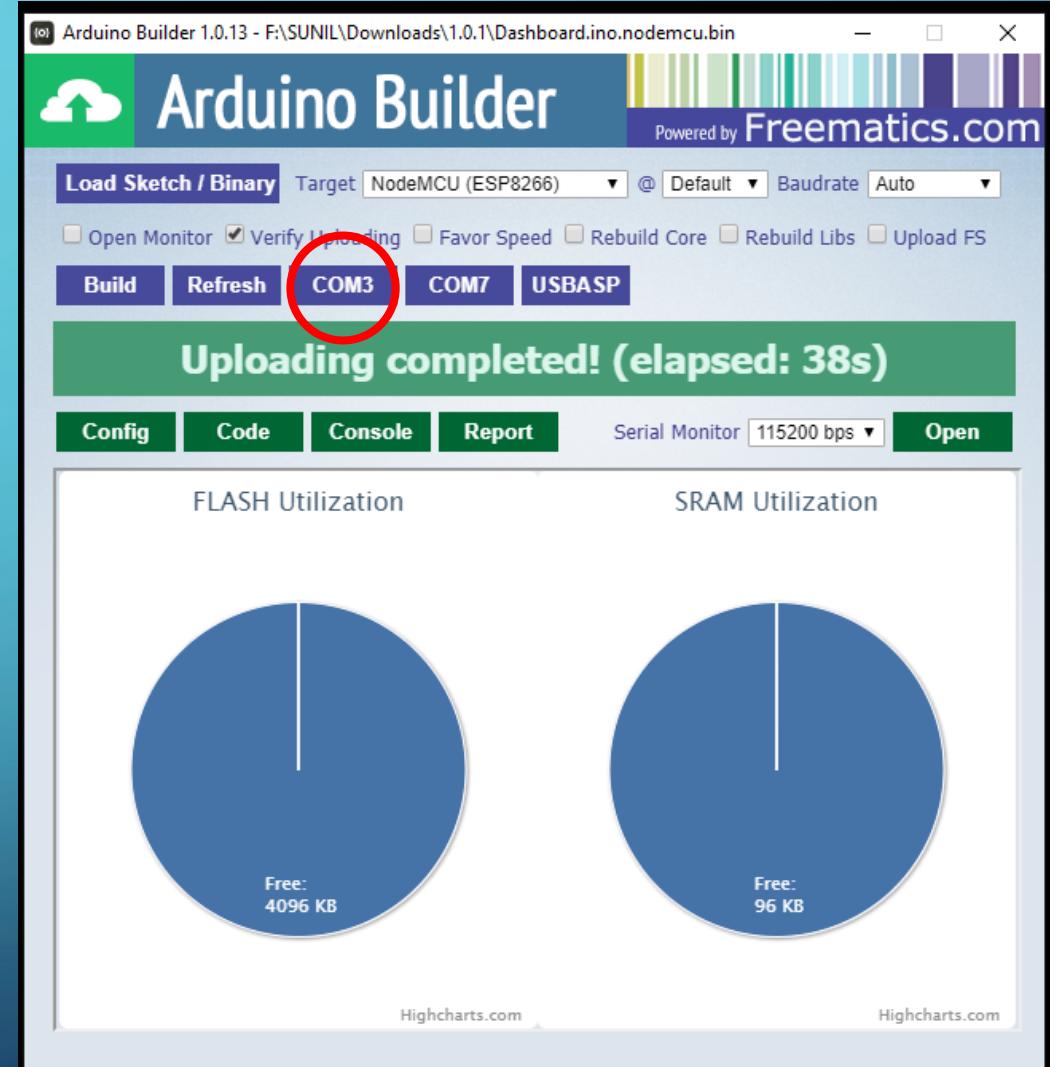


# INSTALL FIRMWARE RELEASE

## STEP 12

Click the correct COM port i.e. the laptop port that the Respimatic system is connected to (in this example it is COM3)

Arduino Builder will now install the selected file on the Respimatic system



DONE