

Working with JPG image files

An extension for Mission 8



FIRIA LABS

Adding JPG image files to the Codex

The CodeX comes with many images that are available through the codex module. They are bitmapped images.

- `pics.HEART`
- `pics.HEART_SMALL`
- `pics.MUSIC`
- `pics.HAPPY`
- `pics.SAD`
- `pics.SURPRISED`
- `pics.ASLEEP`
- `pics.TARGET`
- `pics.TSHIRT`
- `pics.PLANE`
- `pics.HOUSE`
- `pics.TIARA`
- `pics.ARROW_N`
- `pics.ARROW_NE`
- `pics.ARROW_E`
- `pics.ARROW_SE`
- `pics.ARROW_S`
- `pics.ARROW_SW`
- `pics.ARROW_W`
- `pics.ARROW_NW`



Adding JPG image files

You can add images that are JPG files to your CodeX. Just follow these steps.

1. Find an image, or use one of your own images.
 - a. You should be aware of copyright laws. If you look on the internet for images, look for creative commons or royalty free images.
 - b. You should always give credit for the image in a comment in your code.



Making the JPG image useable



Before you can upload and use the image, it needs to be the correct size and compression.

2. Use [Photopea](#)

- Click on the link for Photopea, an online photo editor.

3. Open your image.

- This is easiest if it is saved to your computer or a flash drive or Google drive for easy access.

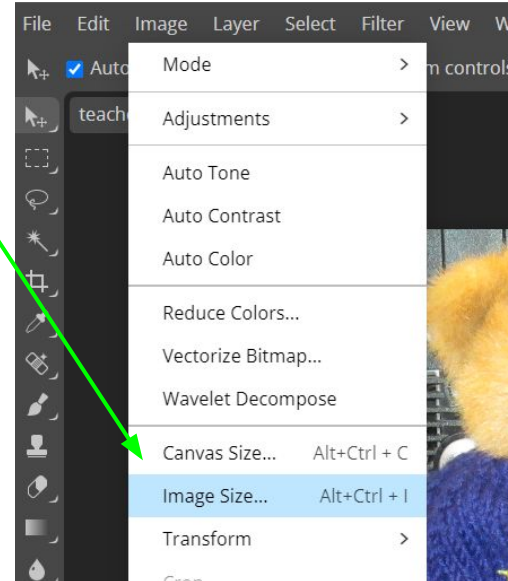
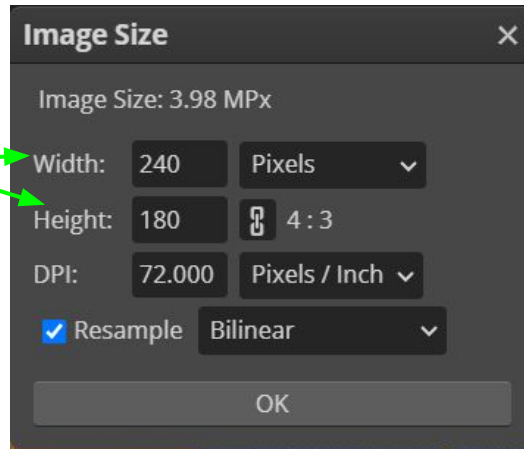


Making the JPG image useable

4. Change the image size to **240x240** pixels (or smaller)

- Click on **Image** – Image Size
- Change Width & Height
- Change the DPI to 72
- The RESAMPLE needs to be Bilinear

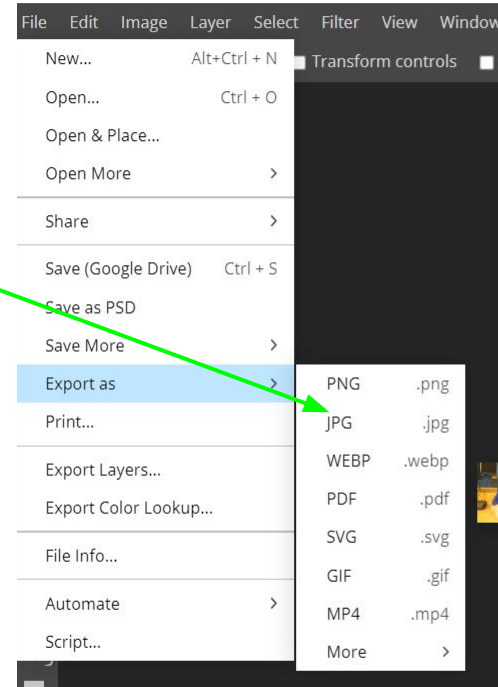
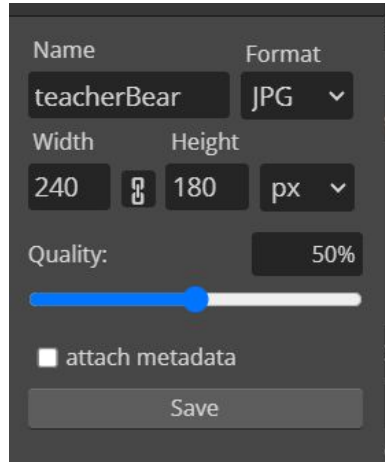
Max: 240 pixels



Making the JPG image useable

5. Export the image as a JPG

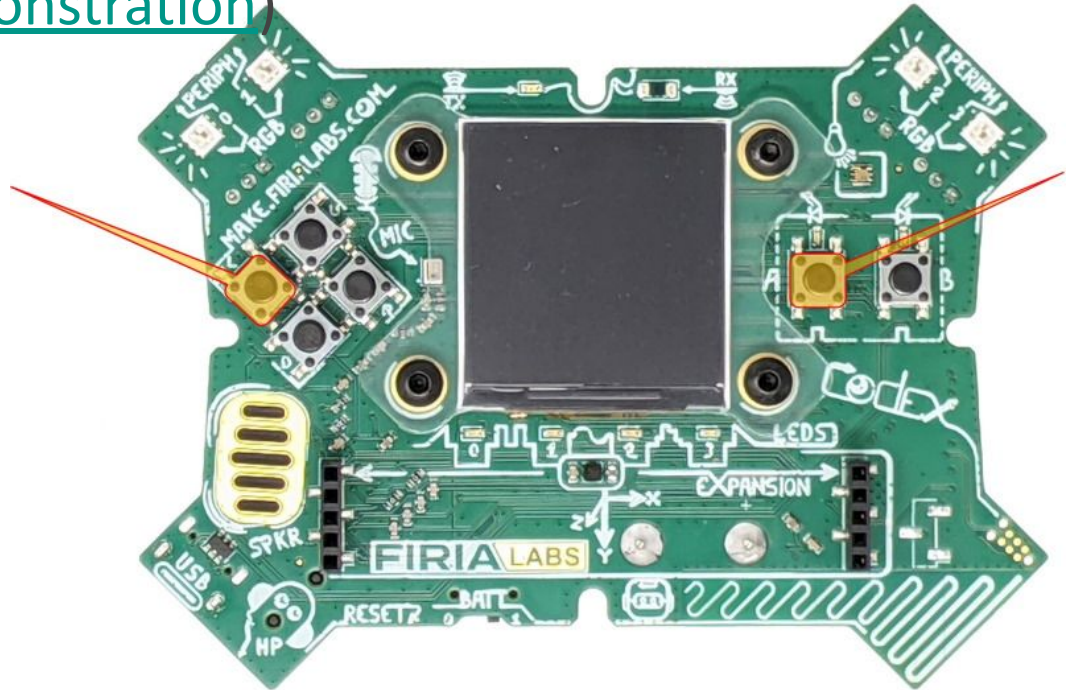
- Click on File – Export as
- Choose JPG
- Give the image a simple name (no spaces)
- Save it where you can find it



Adding JPG image files

6. Put your CodeX into USB-writeable mode ([youtube video demonstration](#))

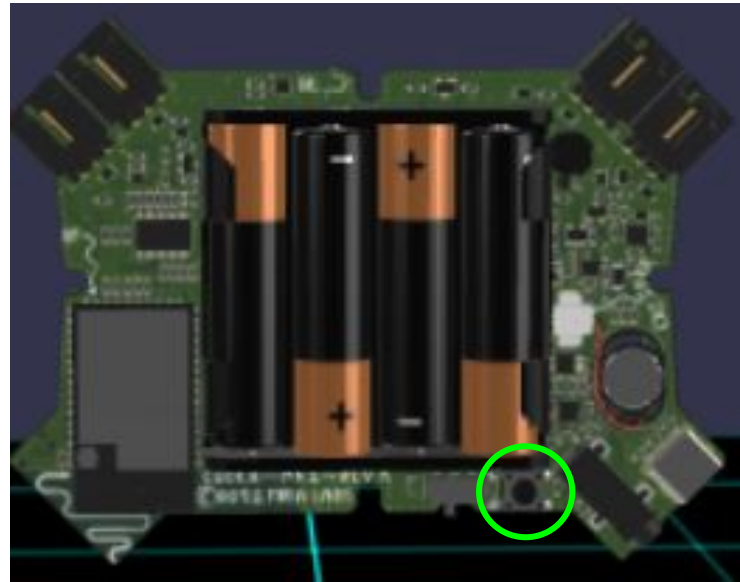
- a. Make sure the CodeX is connected to your computer
- b. Press and hold the **L** and **A** buttons and keep holding them down



Adding JPG image files

6. Put your CodeX into USB-writable mode

- c. Reach around and briefly press the RESET button (press and release)



Adding JPG image files

6. Put your CodeX into USB-writable mode

d. Keep holding buttons **A** and **L** until you see the red LEDs light up from 3 to 0 in right-to-left order.

e. You will see a *double-flash* of ALL red LEDs to confirm the filesystem is in USB-writable mode.



Adding JPG image files

6. Put your CodeX into USB-writable mode

f. Now release **L** and **A**.

g. You are ready to upload your files to the Codex

For more information, check out the documentation:

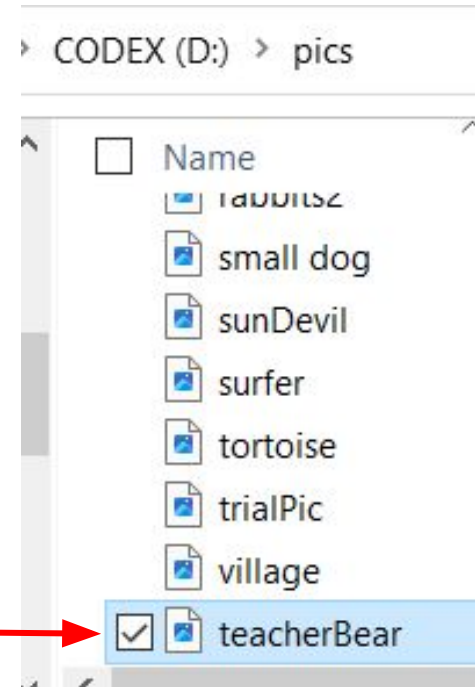
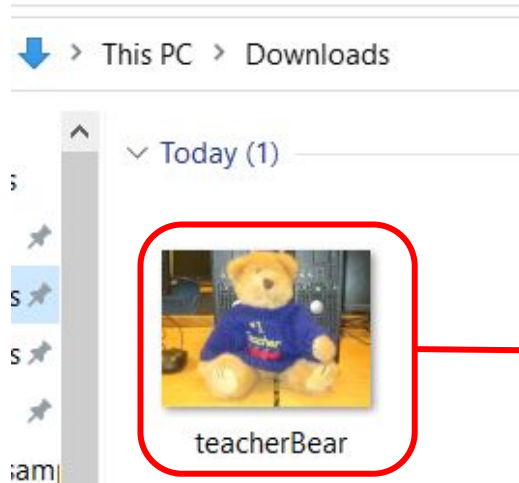
<https://docs.firialabs.com/codex/WorkingWithFiles.html>



Adding JPG image files

7. Upload your image files to the CodeX

- You can upload write to the CodeX, or you can create a folder for pics and upload there



Adding JPG image files

8. Make the CodeX unwritable again by disconnecting it from the computer and then connecting again.



Adding JPG image files

9. Use the `display.draw_jpg` command to display the JPG image.

```
display.draw_jpg("pics/teacherBear.jpg")
```

or

```
display.draw_jpg(x)
```

image file name here, in “_”
(use the path name if in a folder)

Can use a variable that is assigned the image file name, like random choosing from a list

```
images_JPG = ["pics/teacherBear.jpg",  
              "pics/doggie.jpg",  
              "pics/goldfish.jpg"]
```

