

# Working with JPG image files

An extension for Mission 8



**FIRIA** LABS

# Displaying images on Codex

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

You might want to use your own images, which are often JPG files.

- `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)

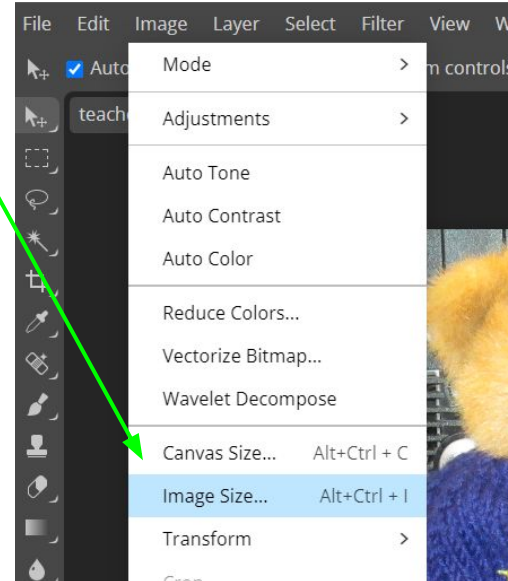
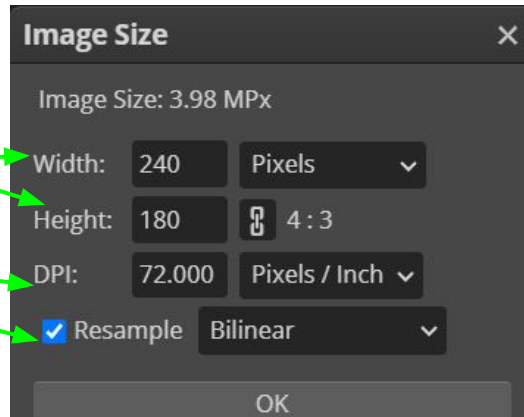
- Click on **Image** – Image Size
- Change Width & Height
- Change the DPI to 72
- The RESAMPLE needs to be

Bilinear

Max: 240 pixels

DPI

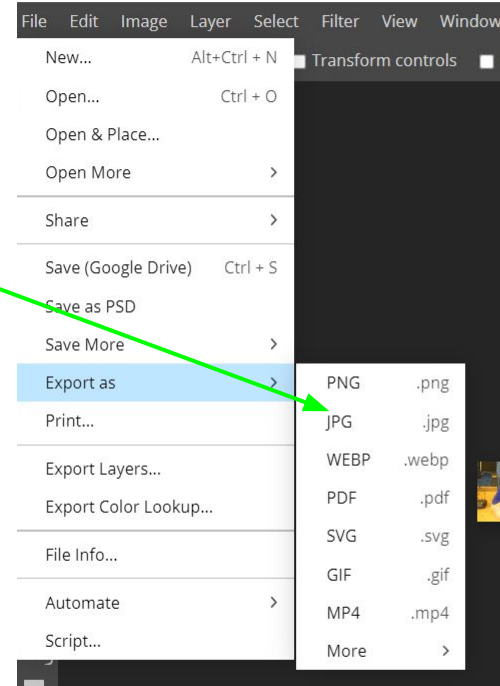
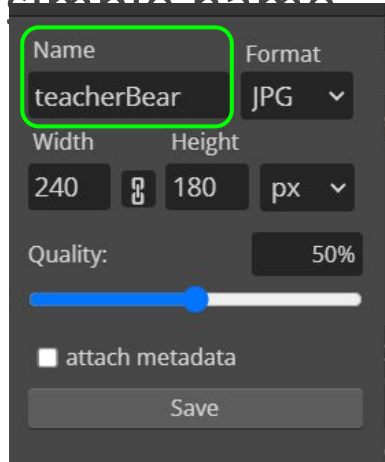
Resample



# 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](#))

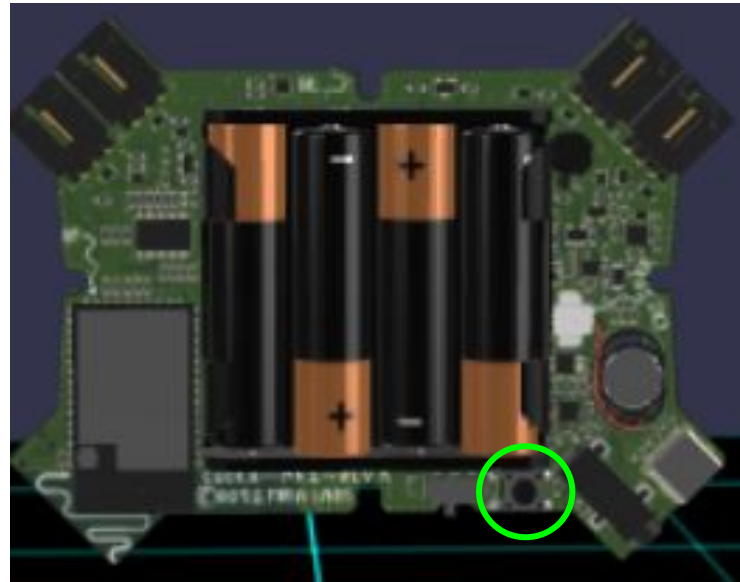
- a. Make sure the CodeX is connected to your computer
- b. Press and hold the **L** and **A** buttons and keep holding them down



# 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

d. Keep holding buttons **A** and **L** until you  
in right-to-left order.

e. You will see a *double-flash* of ALL red LEDs  
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:

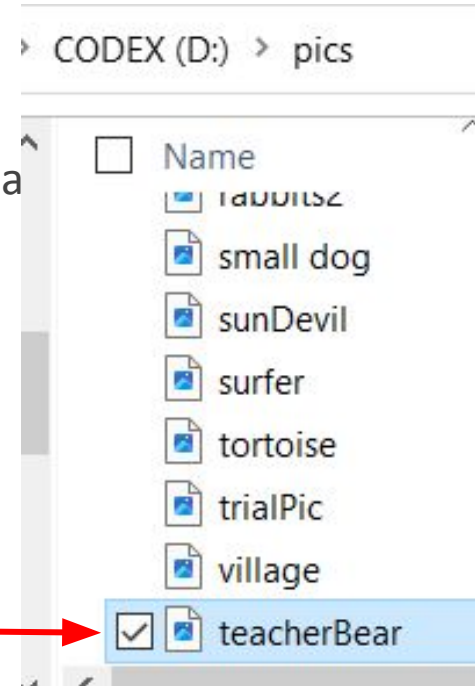
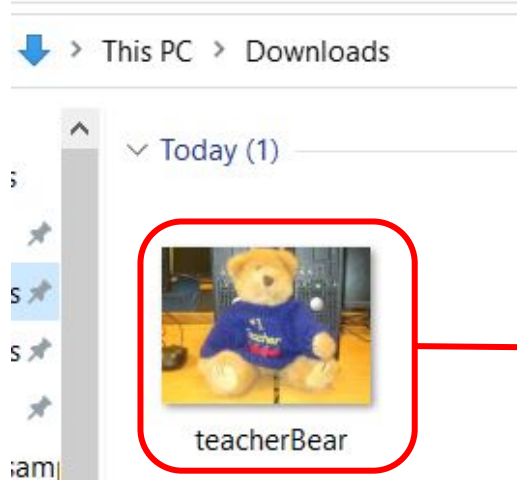
<https://docs.firialabs.com/codex/WorkingWithFiles.html>



# Adding JPG image files

## 7. Upload your image files to the CodeX

- You can upload write to the CodeX, or you can create 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.

or

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

Use a variable that is assigned the image file name

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

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

```
my_images = ["pics/teacherBear.jpg",  
             "pics/doggie.jpg",  
             "pics/goldfish.jpg"]  
display.draw_jpg(random.choice(my_images))
```

Or use a list and choose a random item from the list

