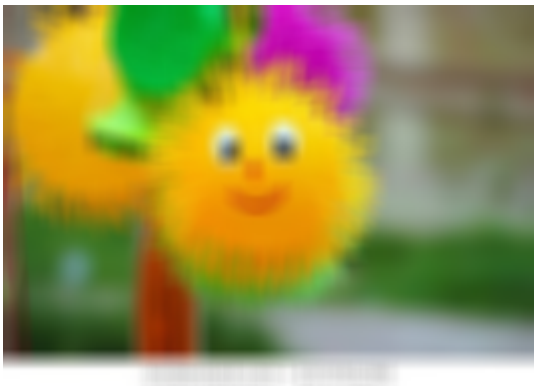
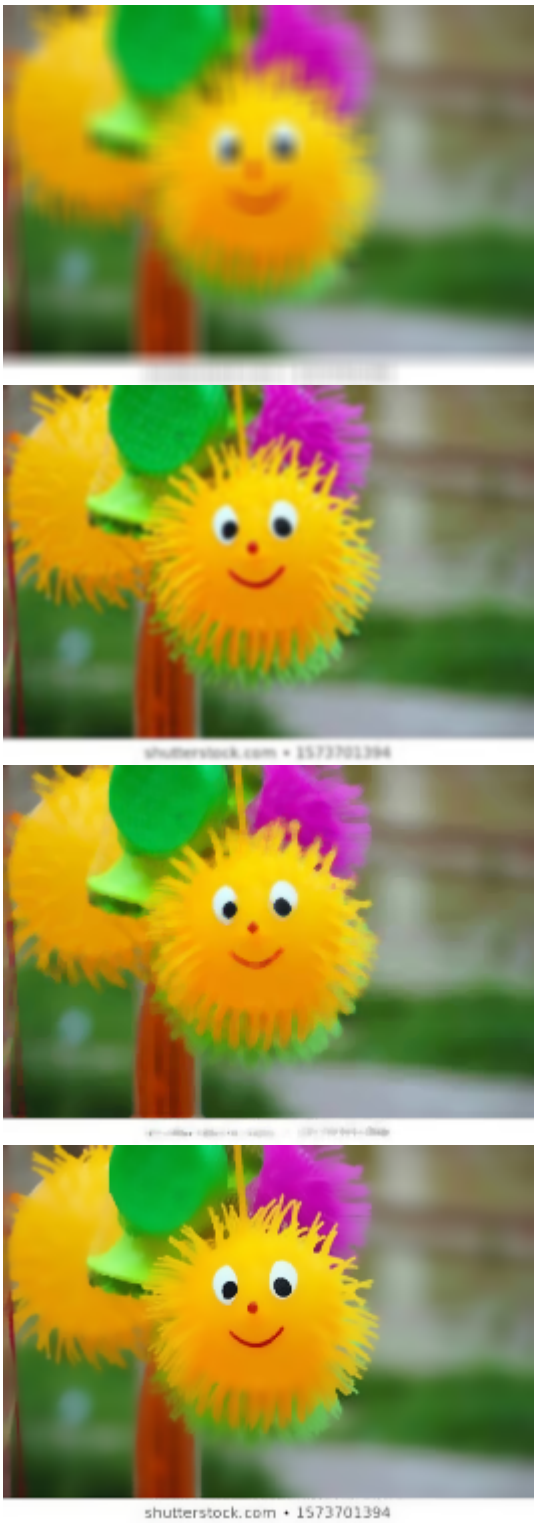
```
# Python Program to blur image
# Importing cv2 module
import cv2 as cv
from google.colab.patches import cv_imshow
img = cv.imread('lovely.jpg')
# make sure that you have saved it in the same folder
# You can change the kernel size as you want
blurImg = cv.blur(img,(10,10))
cv_imshow(blurImg)
cv.waitKey(0)
cv.destroyAllWindows()
# image blurring technique called Averaging
```



```
# importing opencv CV2 module
import cv2 as cv
from google.colab.patches import cv_imshow
img = cv.imread('lovely.jpg')
# make sure that you have saved it in the same folder
# Averaging
# You can change the kernel size as you want
avging = cv.blur(img,(10,10))
cv_imshow(avging)
cv.waitKey(0)
# Gaussian Blurring
# Again, you can change the kernel size
gausBlur = cv.GaussianBlur(img, (5,5),0)
cv_imshow(gausBlur)
cv.waitKey(0)
# Median blurring
medBlur = cv.medianBlur(img,5)
cv_imshow(medBlur)
cv.waitKey(0)
# Bilateral Filtering
bilFilter = cv.bilateralFilter(img,9,75,75)
cv_imshow(bilFilter)
cv.waitKey(0)
cv.destroyAllWindows()
```




```
# Motion Blur of an image (optional)
# loading library
import cv2 as cv
from google.colab.patches import cv_imshow
import numpy as np
img = cv.imread('lovely.jpg')
# Specify the kernel size.
# The greater the size, the more the motion.
kernel_size = 30
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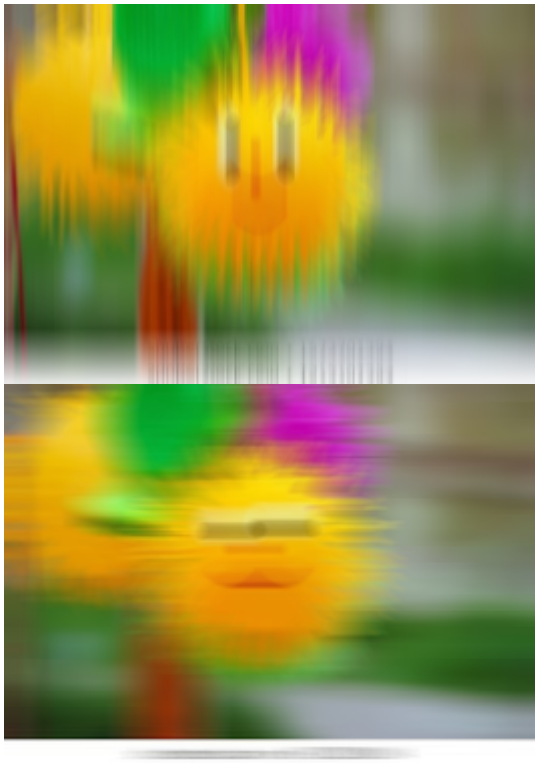
```
kernel_size = 30
# Create the vertical kernel.
kernel_v = np.zeros((kernel_size, kernel_size))
# Create a copy of the same for creating the horizontal kernel.
kernel_h = np.copy(kernel_v)
# Fill the middle row with ones.
kernel_v[:, int((kernel_size - 1)/2)] = np.ones(kernel_size)
kernel_h[int((kernel_size - 1)/2), :] = np.ones(kernel_size)
# Normalize.
kernel_v /= kernel_size
kernel_h /= kernel_size
# Apply the vertical kernel.
vertical_mb = cv.filter2D(img, -1, kernel_v)
# Apply the horizontal kernel.
horizonal_mb = cv.filter2D(img, -1, kernel_h)
# Save the outputs.
cv.imwrite('beauty_vertical.jpg', vertical_mb)
cv.imwrite('beauty_horizontal.jpg', horizonal_mb)
# Display the image
cv_imshow(vertical_mb)
cv_imshow(horizonal_mb)
cv.waitKey(0)
cv.destroyAllWindows()
```



```
# importing cv2
import cv2 as cv
from google.colab.patches import cv_imshow
path='lovely.jpg'
 # Reading an image in default mode
image = cv.imread(path)
```

```
image = cv.imread(path)
# Window name in which image is displayed
window_name = 'Image'
# ksize
ksize = (10,10)
# Using cv2.blur() method
image = cv.blur(image, ksize)
# Displaying the image
cv_imshow(image)
cv.waitKey(0)
cv.destroyAllWindows()
```