```
import tensorflow as tf
import keras.models
import keras.layers as layers
import keras.utils.np_utils as np_utils
import numpy as np
import cv2ml as ml
```

```
(x_train,y_train),(x_test,y_test) = keras.datasets.mnist.load_data()
```

```
Downloading data from https://storage.googleapis.com/tensorflow/tf-keras-datasets/mnist.npz
11490434/11490434 [==============================] - 0s 0us/step
```

```
len(x_train)
```

```
60000
```

```
len(y_train)
```

```
60000
```

```
x_train[0].shape
```

```
(28, 28)
```

```
x_train[0]
```

```
array([[  0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,
        0,   0,   0],
       [  0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,
        0,   0,   0],
       [  0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,
        0,   0,   0],
       [  0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,
        0,   0,   0],
       [  0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,
        0,   0,   0],
       [  0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   3,
       18,  18,  18],
       [  0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,   0,  70,
      240, 240, 240
```