

## Gui Application

### Installation:

Currently I am using Ubuntu-16.04

A. Installing python 3.6.

```
sudo apt-get update  
sudo apt-get install python3.6
```

B. Install opencv:

```
pip install opencv-python
```

C. Install tkinter

```
sudo apt-get update  
sudo apt-get install python3-tk
```

D. Install pytesseract

```
pip install pytesseract
```

Get the tesseract tar.gz file from github:

<https://github.com/tesseract-ocr/tesseract/releases/tag/3.05.02>

Install dependencies:

```
sudo apt-get install g++  
sudo apt-get install autoconf automake libtool  
sudo apt-get install autoconf-archive  
sudo apt-get install pkg-config  
sudo apt-get install libpng-dev  
sudo apt-get install libjpeg8-dev  
sudo apt-get install libtiff5-dev  
sudo apt-get install zlib1g-dev
```

Now, the final installation : Go to the directory where tar.gz file is downloaded

Run ./autogen.sh

```
$ sudo tar xf tesseract-3.05.02.tar.gz &&\
```

```
cd tesseract-3.05.02 &&\
```

```
sudo ./configure &&\
```

```
sudo make &&\
```

```
sudo make install
```

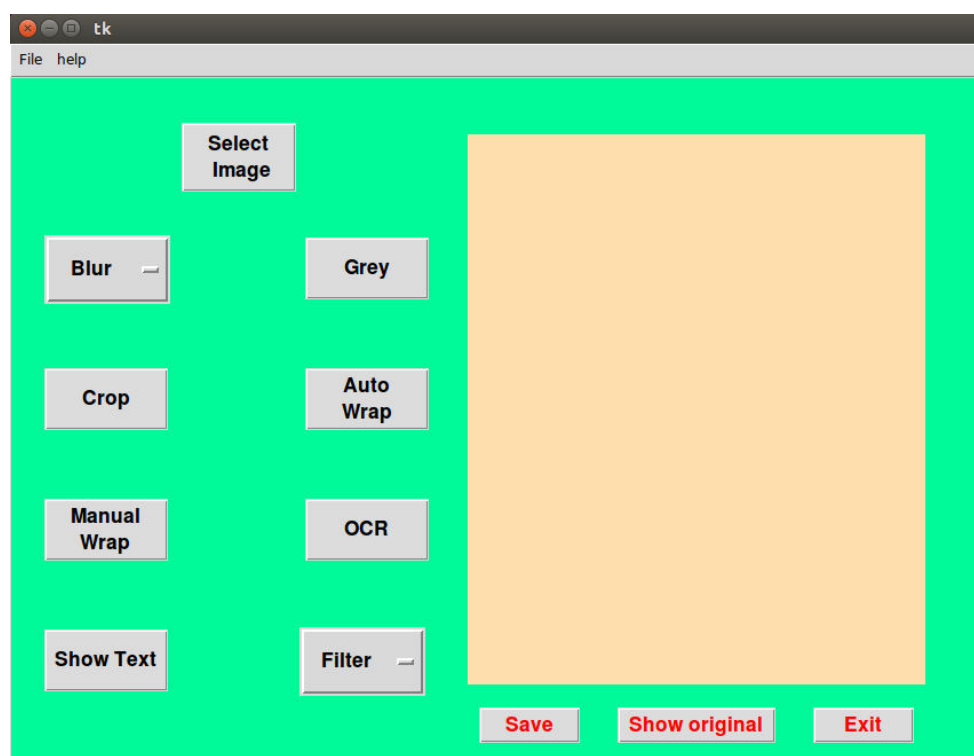
## Working:

The Application uses tkinter to build the base GUI. Pytesseract is used to read the text in images and print the same. OpenCV enables cropping and warping

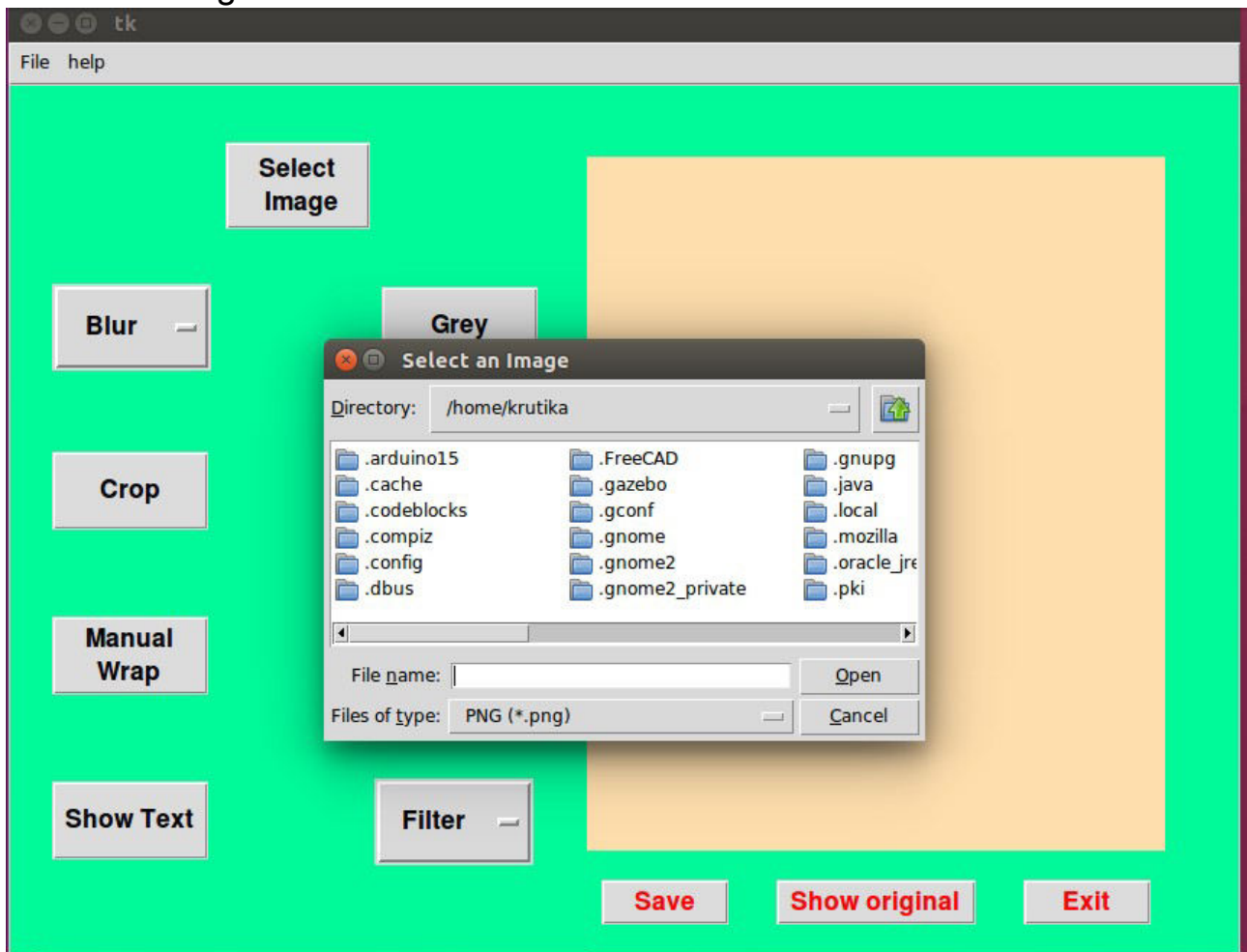
1. GUI consist of menubar on top of window, 7 buttons and two dropdown menus
2. The menubar gives acces to File and help. By clicking on File, user cane open an image, Save it and exit the current GUI. Click on help menu gives access to about and instructions. It creates an text-box in text-frame and user can read them
3. Click 'Select Image' to select the image(\*png). It is shown in Frame
4. Select the types of blur you want. Similarly, Select the respective button to get their features
5. Crop the image by 'CLICK-DRAG'
6. You can use Auto-wrap for documents. If auto wrap is unable to detect edges. Message box will appear; in that case select the manual wrap and click on image for 4 points

## Snapshots:

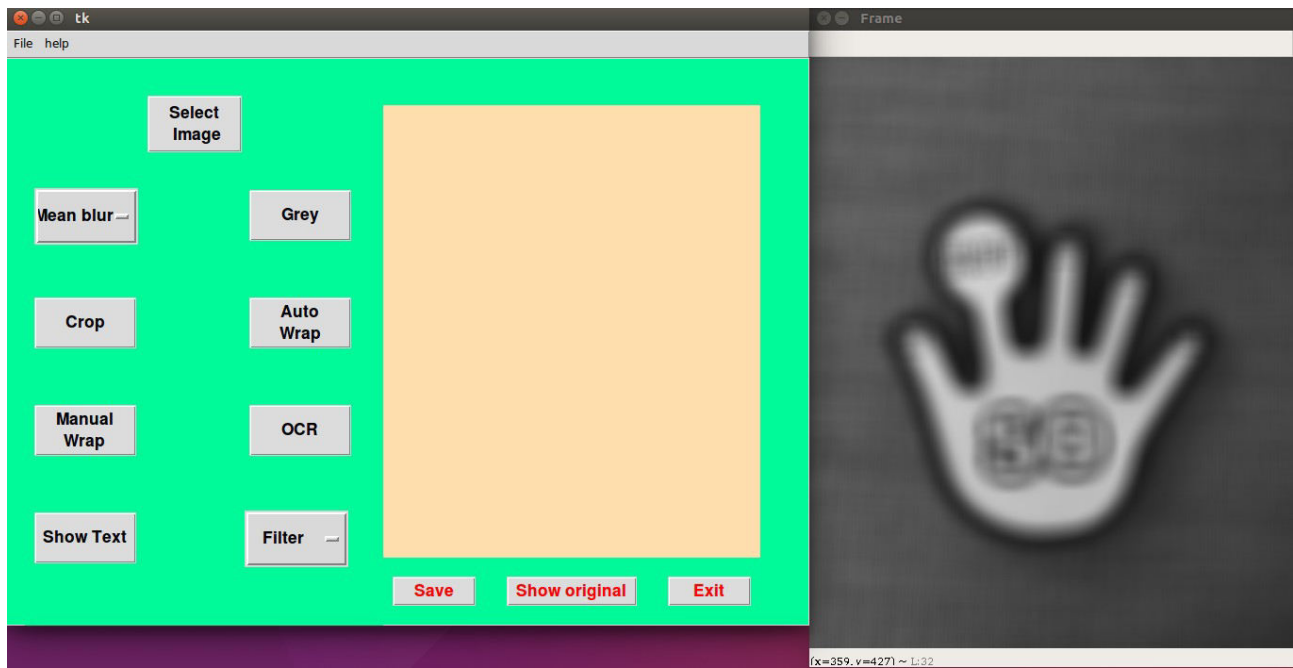
1. GUI :



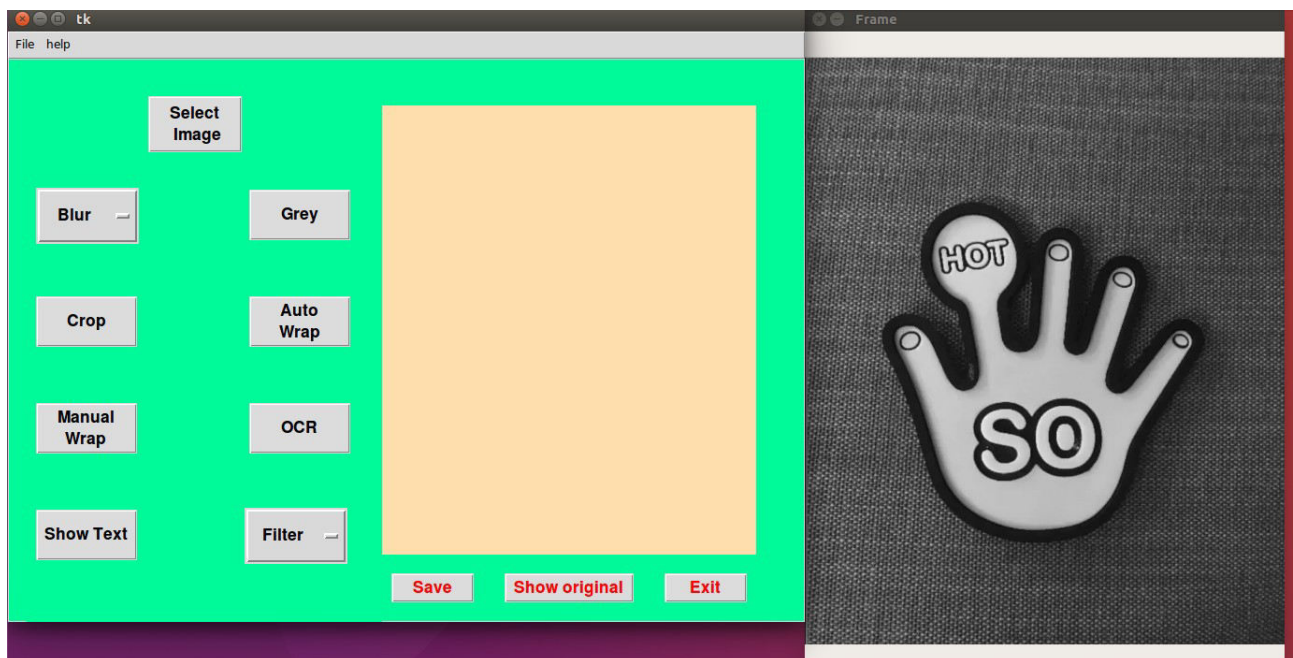
## 2. Select Image



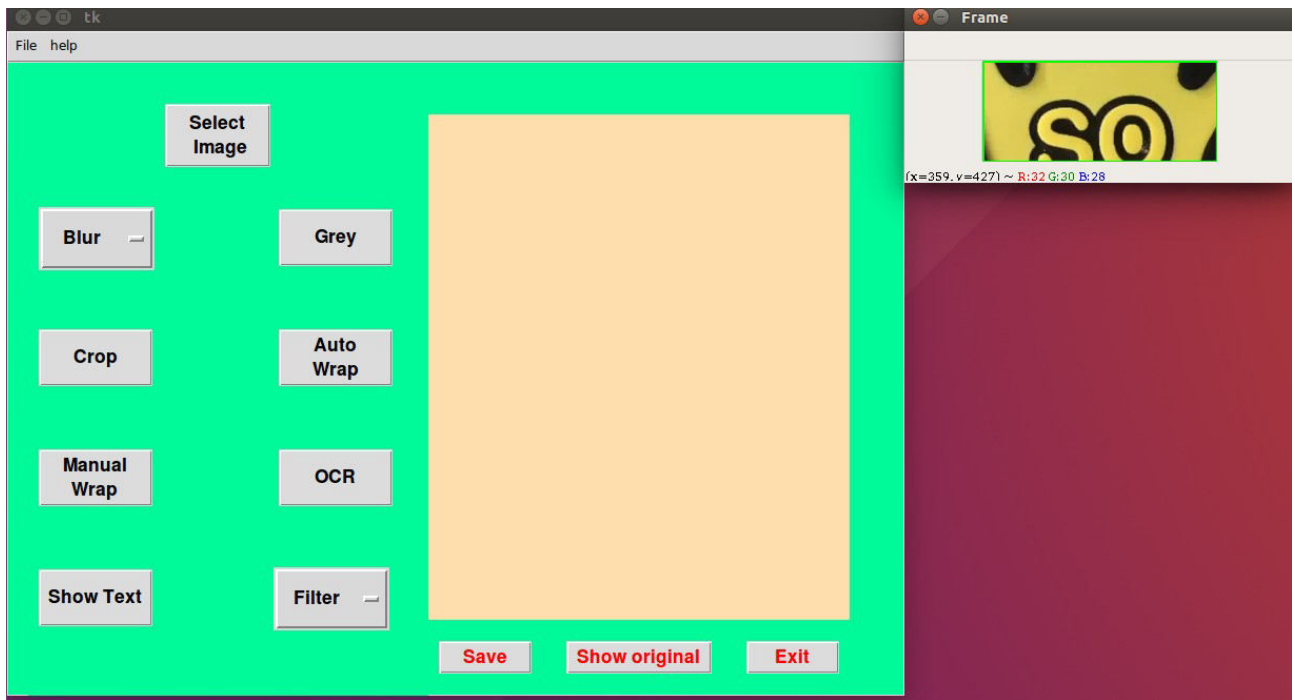
## 3. Selecting Mean blur in Blur Dropdown



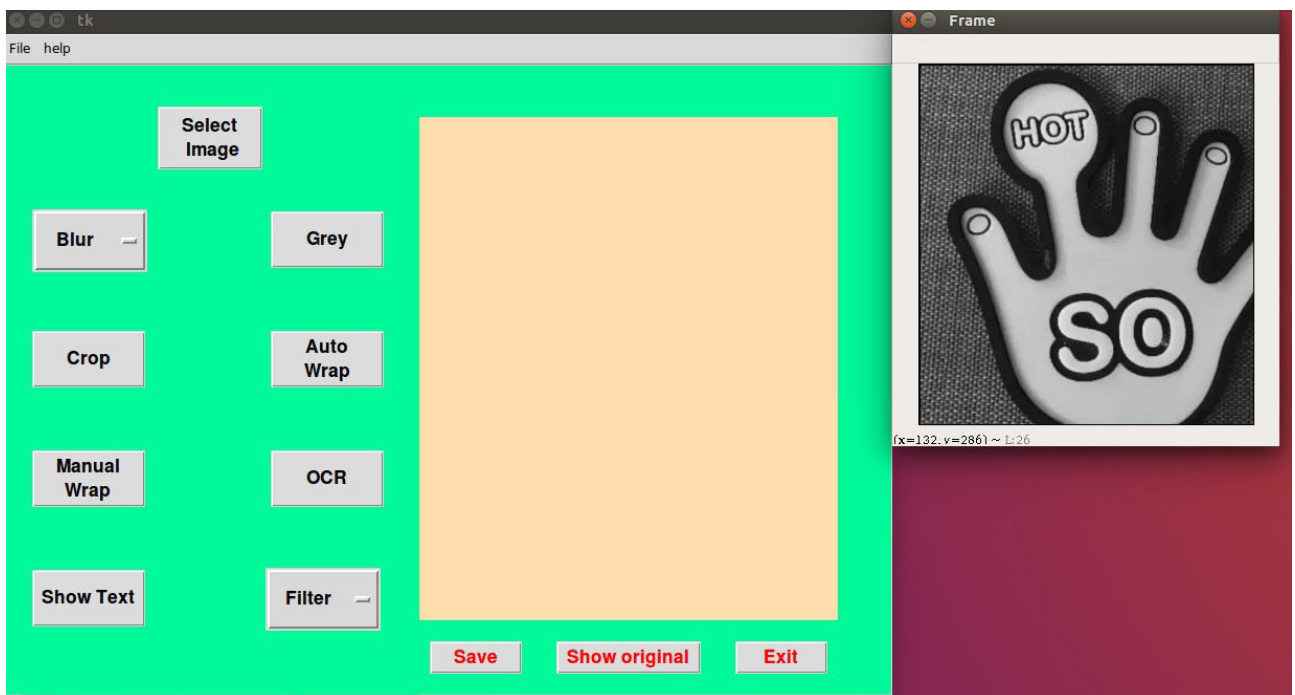
#### 4.Grey



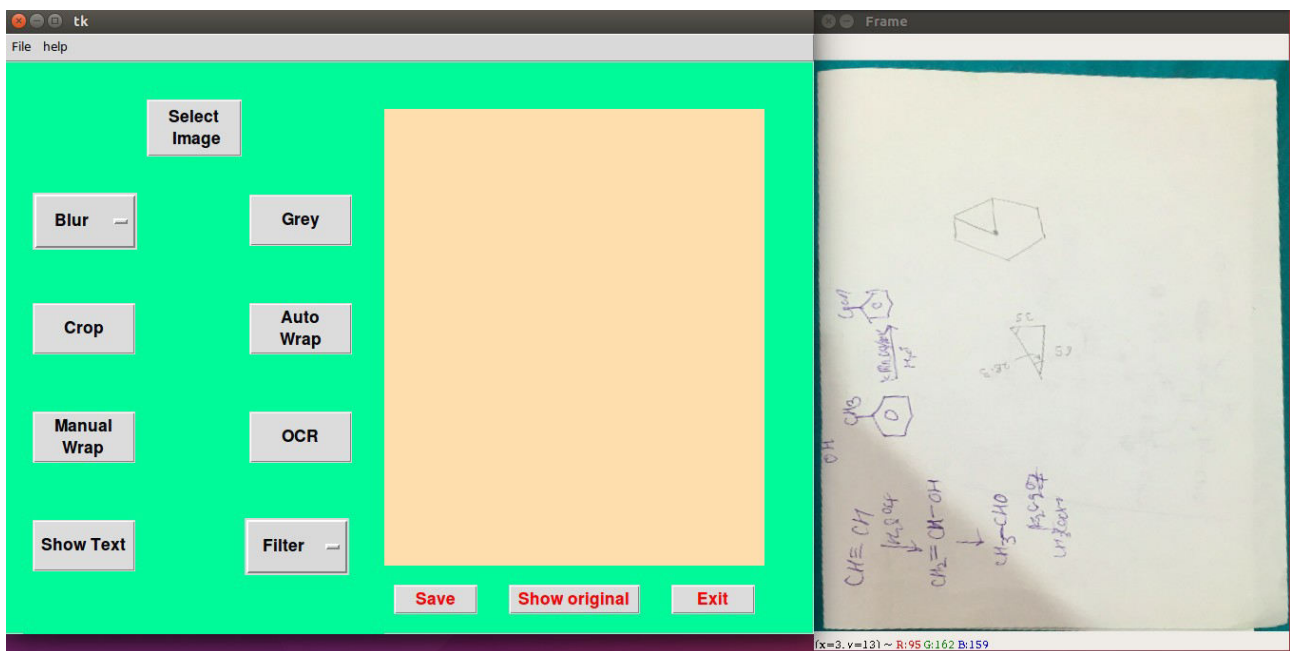
#### 5.Crop



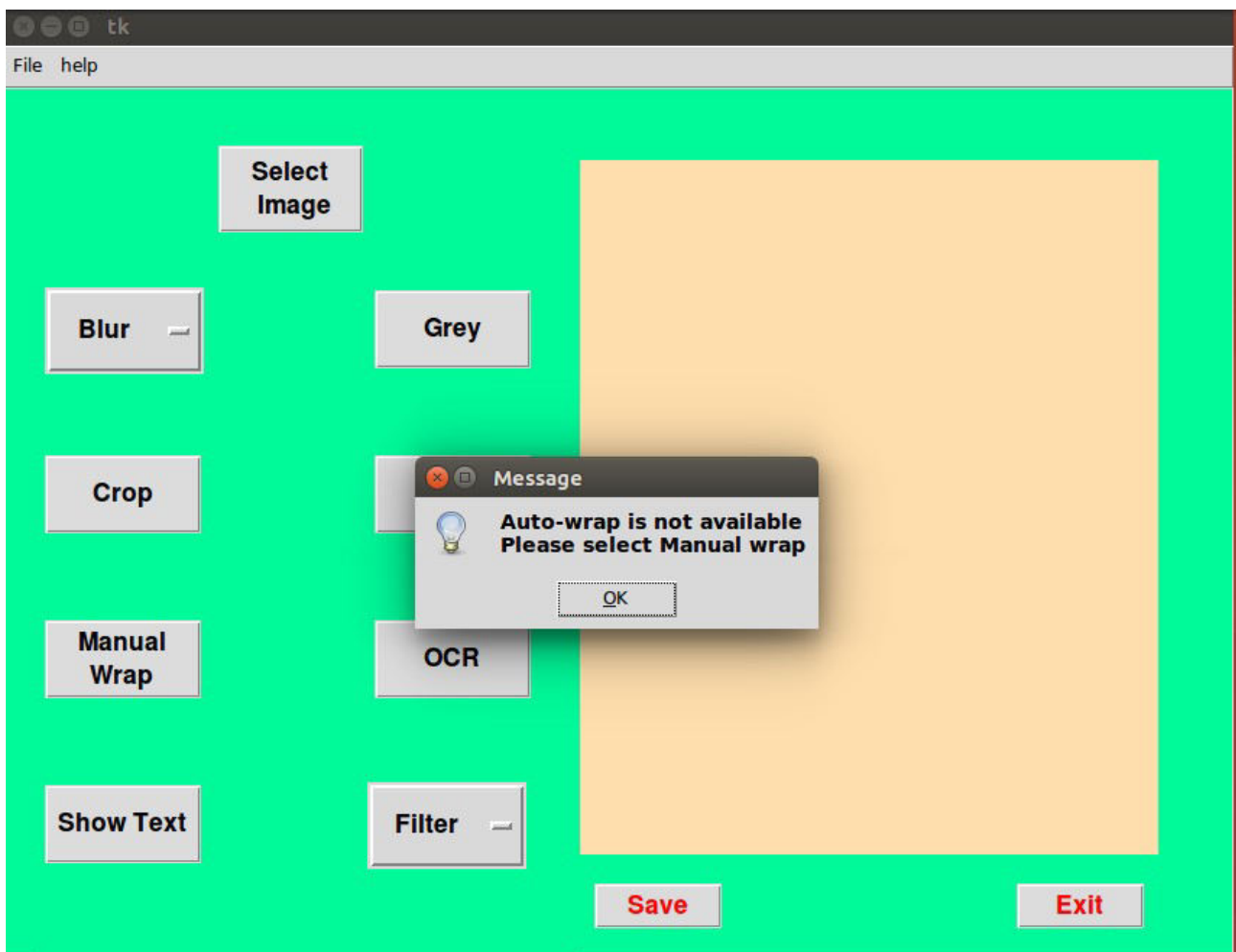
Crop image after selecting Grey:



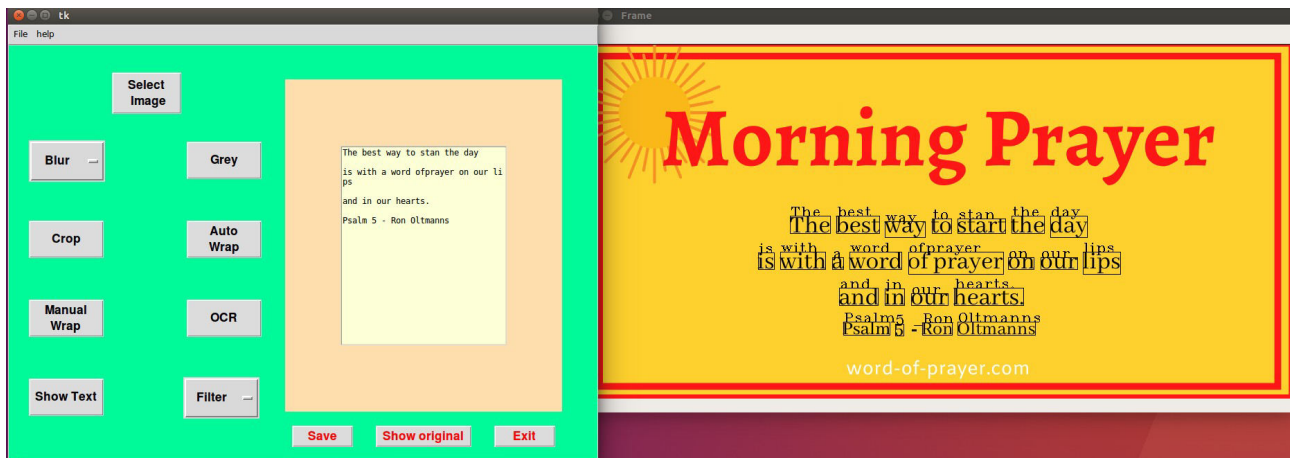
## 6.Auto Wrap



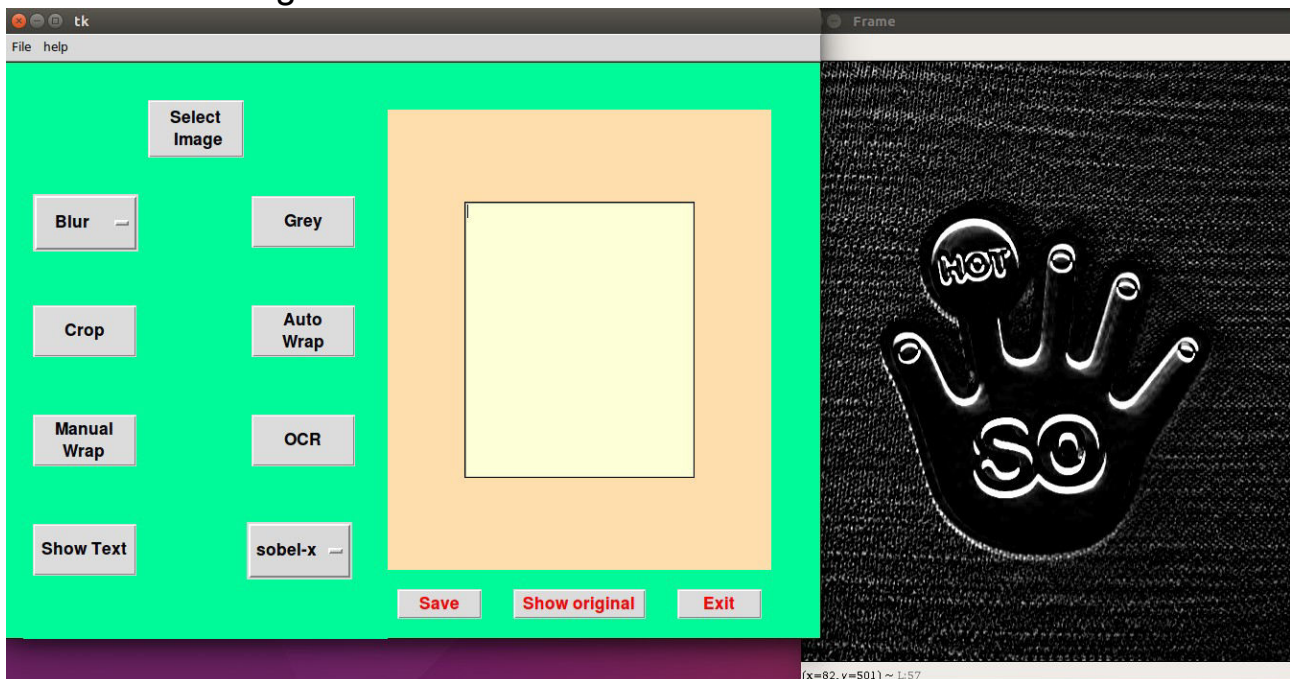
## 7.Manual Wrap (if Auto wrap not available)



## 8.OCR and Show text:



## 9.Filter -Selecting sobelx :



## 10.Saving Image (If user uses Save-as in File menu-It guides to select the name and and Save-Button saves in selected filename directory

