Edge Detection Demo

Edge detection is a fundamental filtering technique in computer vision that helps identify boundaries or transitions between different regions in an image. It has a wide range of practical applications, including but not limited to image segmentation, image enhancement, Optical Character Recognition (OCR) and many more.
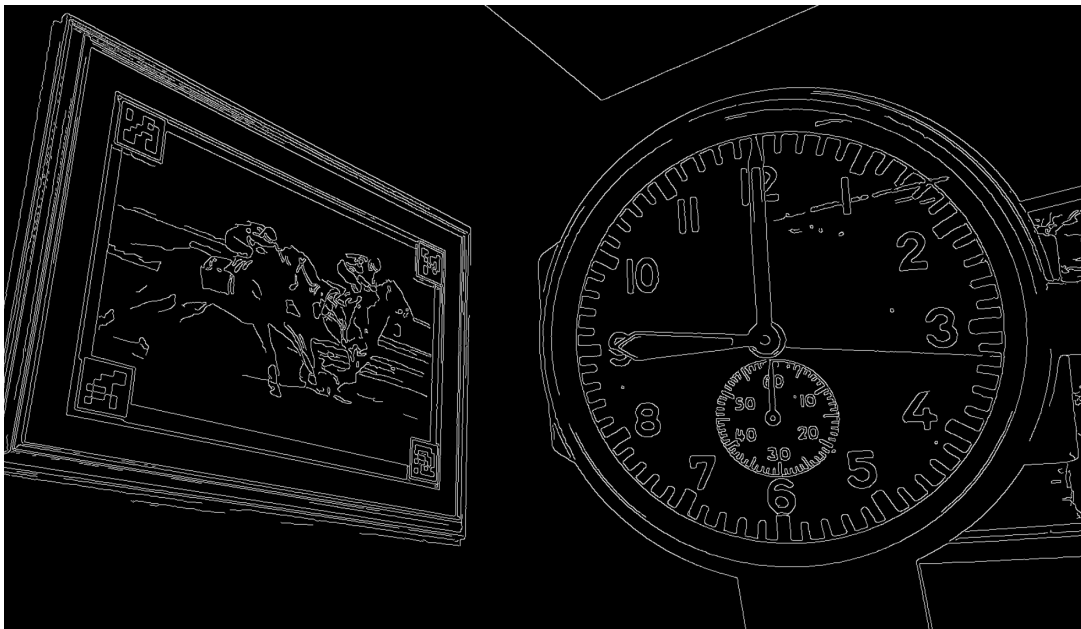
1. Make sure a camera is connected to the USB port on the STEM-Kit.
2. On the STEM-Kit, open a command terminal window and change directory to demos

```
pi@raspberrypi:~ $ cd demos
pi@raspberrypi:~/demos $
```

3. Execute the demo script as shown below. After the command prompt [$] type the following:

```
~/demos $ python module-4-demo-edge-detection.py
```

4. The script will launch a window with a video feed from the camera.
5. The video stream will be converted to filtered frames that reveal prominent edges.
6. Try pointing the camera at various objects to see how edges within the video stream are identified in the filtered image.
7. To exit the program, select the `q` key on the keyboard.

Sample filtered image frame from my office