

250Recognize watch from the given image by general Object recognition using Open CV.
CODE:

```
import cv2
```

```
# Load the pre-trained Haar cascade for watch detection
```

```
watch_cascade = cv2.CascadeClassifier("watch-cascade.xml") # Ensure this file is in the same directory
```

```
# Read the image
```

```
image = cv2.imread(r"C:\Users\harik\Downloads\CV LAB\smartwatch.jpg") # Replace with your image file path
```

```
# Check if the image was loaded successfully
```

```
if image is None:
```

```
    print("Error: Could not load image. Check the file path.")
```

```
    exit()
```

```
# Convert the image to grayscale
```

```
gray = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
```

```
# Detect watches in the image
```

```
watches = watch_cascade.detectMultiScale(gray, scaleFactor=1.1, minNeighbors=5, minSize=(30, 30))
```

```
# Draw bounding boxes around detected watches
```

```
for (x, y, w, h) in watches:
```

```
    cv2.rectangle(image, (x, y), (x + w, y + h), (0, 255, 0), 2)
```

```
# Display the image with detections
```

```
cv2.imshow("Detected Watch", image)
```

```
cv2.waitKey(0)
```

```
cv2.destroyAllWindows()OUTPUT:
```

