P3 motor

```
import RPi.GPIO as GPIO
from time import sleep
GPIO.setmode(GPIO.BOARD)
motor1=7
motor2=11
GPIO.setup(motor1,GPIO.OUT)
GPIO.setup(motor2,GPIO.OUT)
GPIO.output(motor1,GPIO.HIGH)
GPIO.output(motor2,GPIO.LOW)
sleep(3)
GPIO.output(motor1,GPIO.LOW)
GPIO.output(motor2,GPIO.HIGH)
sleep(3)
```

P4 anticlockwise

```
import RPi.GPIO as GPIO
from time import sleep

GPIO.setmode(GPIO.BOARD)

motor1 = 7
motor2 = 11

GPIO.setup(motor1, GPIO.OUT)
GPIO.setup(motor2, GPIO.OUT)

try:
    while True:
        GPIO.output(motor1, GPIO.HIGH)
        GPIO.output(motor2, GPIO.LOW)
        sleep(3)

        GPIO.output(motor1, GPIO.LOW)
        GPIO.output(motor2, GPIO.HIGH)
        sleep(3)

except KeyboardInterrupt:
    GPIO.cleanup()
```

P9 Haar cascades

Harr
cascades:-https://github.com/kipr/opencv/blob/master/data/haarcascades/haarcascade_frontalface_de
fault.xml

```python
import cv2
from google.colab.patches import cv2_imshow
#reading the image
img = cv2.imread("face.jpg")
#converting image to grayscale
gray_img = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
#Loading the required haar-cascade.xml classifier file
haar_cascade = cv2.CascadeClassifier(cv2.data.haarcascades +
"haarcascade_frontalface_default.xml")
eye_cascade = cv2.CascadeClassifier(cv2.data.haarcascades +
"haarcascade_eye.xml")
faces_rect = haar_cascade.detectMultiScale(gray_img, 1.3, 5)
eyes = eye_cascade.detectMultiScale(gray_img)
for(x, y, w ,h) in faces_rect:
  cv2.rectangle(img, (x,y), (x+w, y+h), (0,255,0), 2)
  for(ex, ey, ew ,eh) in eyes:
    cv2.rectangle(img, (ex,ey), (ex+ew, ey+eh), (0,255,0), 2)
    cv2_imshow(img)
    cv2.waitKey(0)
```