

#MainCode

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import os
import RPi.GPIO as GPIO
import time
GPIO.setmode(GPIO.BCM)
GPIO.setup(2, GPIO.IN)
GPIO.setup(3, GPIO.IN)
GPIO.setup(15, GPIO.OUT)
echo1=4
trig1=14

GPIO.setwarnings(False)

GPIO.setup(trig1, GPIO.OUT)
GPIO.setup(echo1, GPIO.IN, pull_up_down = GPIO.PUD_UP)

def object_rec():
    os.system('cd /home/pi/Desktop/ied/')
    os.system('raspistill -o input_image.jpeg -t 250 -ISO 150 -q 100')
    os.system('espeak -ven-us+m7 "image captured" -s155')
    os.system('python3
/home/pi/Desktop/test/models/tutorials/image/imagenet/classify_image.py
--image_file=/home/pi/Desktop/ied/input_image.jpeg')

def text_rec():
    os.system('cd /home/pi/Desktop/ied/')
    os.system('raspistill -o input_image.jpeg -t 250 -ISO 150 -q 100')
    os.system('espeak -ven-us+m7 "image captured" -s155')
    os.system('tesseract input_image.jpeg out')
    os.system('cat out.txt')
    os.system('cat out.txt | espeak -ven-us+m7 -s155')

def touch_input():

    if(GPIO.input(2) ==GPIO.LOW):
        os.system('espeak -ven+m7 "text mode enabled"')
        text_rec()
        time.sleep(1)

    if(GPIO.input(3)==GPIO.LOW):
        os.system('espeak -ven+m7 "image mode enabled"')
        object_rec()
        os.system('cat result.txt | espeak -ven-us+m7 -s155')
        time.sleep(1)

def ultrasonic(echo, trig):

    GPIO.output(trig,0)
    time.sleep(0.1)
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GPIO.output(trig,1)
time.sleep(0.000001)
GPIO.output(trig,0)

while GPIO.input(echo)==0:
    pass
start=time.time()

while GPIO.input(echo)==1:
    pass
stop=time.time()

distance=(stop-start)*17000
return (distance)

def vibrate():
    GPIO.output(15,1)
    time.sleep(1)
    GPIO.output(15,0)

if __name__ == "__main__":
    while(True):
        touch_input()

        r1=ultrasonic(echo1, trig1)
        if(r1<15):
            print(r1)
            vibrate()

```

#TensorFlowSourceCodeLink---<https://github.com/tensorflow/tensorflow>