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1  #!/usr/bin/python
2  # -*- coding:utf-8 -*-
3  from gpiozero import DigitalInputDevice as IR
4  from gpiozero import OutputDevice as Relay
5  import time
6
7  # Define infrared pin
8  ir = IR(20)
9  # Define relay pin
10 relay = Relay(21)
11
12
13 def exec_cmd(key_val):
14     if(key_val==0x45):
15         print("Button CH-")
16     elif(key_val==0x46):
17         print("Button CH")
18     elif(key_val==0x47):
19         print("Button CH+")
20     elif(key_val==0x44):
21         print("Button PREV")
22     elif(key_val==0x40):
23         print("Button NEXT")
24     elif(key_val==0x43):
25         print("Button PLAY/PAUSE")
26     elif(key_val==0x07):
27         print("Button VOL-")
28         # Open relay
29         relay.on()
30     elif(key_val==0x15):
31         print("Button VOL+")
32         # Close relay
33         relay.off()
34     elif(key_val==0x09):
35         print("Button EQ")
36     elif(key_val==0x16):
37         print("Button 0")
38     elif(key_val==0x19):
39         print("Button 100+")
40     elif(key_val==0x0d):
41         print("Button 200+")
42     elif(key_val==0x0c):
43         print("Button 1")
44     elif(key_val==0x18):
45         print("Button 2")
46     elif(key_val==0x5e):
47         print("Button 3")
48     elif(key_val==0x08):
49         print("Button 4")
50     elif(key_val==0x1c):
51         print("Button 5")
52     elif(key_val==0x5a):
53         print("Button 6")
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54     elif(key_val==0x42):
55         print("Button 7")
56     elif(key_val==0x52):
57         print("Button 8")
58     elif(key_val==0x4a):
59         print("Button 9")
60
61 while True:
62     if ir.value == 0:
63         count = 0
64         while ir.value == 0 and count < 200:
65             count += 1
66             time.sleep(0.00006)
67         count = 0
68         while ir.value == 1 and count < 80:
69             count += 1
70             time.sleep(0.00006)
71         idx = 0
72         cnt = 0
73         data = [0,0,0,0]
74
75         for i in range(0,32):
76             count = 0
77             while ir.value == 0 and count < 15:
78                 count += 1
79                 time.sleep(0.00006)
80             count = 0
81             while ir.value == 1 and count < 40:
82                 count += 1
83                 time.sleep(0.00006)
84             if count > 8:
85                 data[idx] |= 1<<cnt
86             if cnt == 7:
87                 cnt = 0
88                 idx += 1
89             else:
90                 cnt += 1
91         if data[0]+data[1] == 0xFF and data[2]+data[3] == 0xFF:
92             print("Retrieve key: 0x%02x" %data[2])
93             exec_cmd(data[2])
94
95
```