

```
1  from socket import *
2  import sys
3  import time
4
5  HOST = ''
6  PORT = 5008
7  SERVERHOST = ''
8  SERVERPORT = 5009
9  ADDRESS = "192.168.101.255"
10 WAITINGTIME = 10
11
12 def get_alivings(clientsocket):
13     serversock = socket()
14     # serversock.setsockopt(SOL_SOCKET, SO_REUSEADDR, 1)
15     serversock.bind((SERVERHOST, SERVERPORT)) # IP と PORT を指定してバ
        バインド
16
17     serversock.listen(300) # 接続の待ち受けを準備す
        する (キューの最大数を指定)
18     print('Waiting for connections...')
19
20     servernum = 0 # 生きてる (=応答のある) サーバの数
21     tstart = time.time()
22
23     clientsocket.sendto(b'raspi_resreq', (ADDRESS, PORT)) # 応答リクエストをブロー
        ードキャストする
24
25     while True:
26         clientsock, client_address = serversock.accept() # クライアントとの接続
27         servernum += 1
28         print("Received[" , servernum, "] from", client_address, ": ", clientsock.rec
            cv(4096))
29
30         clientsock.close() # クライアントの切断
31
32         tcurrent = time.time()
33         pasttime = tcurrent - tstart
34         print(f"Past time: {pasttime}")
35
36         if (pasttime > WAITINGTIME):
37             break # 最大待ち時間を過ぎたら
                ら受付終了
38
39     serversock.close() # サーバソケットを閉じる
        る
40
41     return servernum
42
43 s = socket(AF_INET, SOCK_DGRAM)
44 s.setsockopt(SOL_SOCKET, SO_BROADCAST, 1)
45 s.bind((HOST, PORT))
46
47 while True:
48     # msg = raw_input("> ")
49     # s.sendto(msg, (ADDRESS, PORT))
50     msg = input("> ")
51     s.sendto(msg.encode(), (ADDRESS, PORT))
52
53     if msg == ".":
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54         break
55
56     if msg == "reboot":
57         s.sendto(b'raspi_reboot', (ADDRESS, PORT))
58         print('Paspberry-pi servers are rebooting')
59         break
60
61     if (msg == "shutdown" or msg == "halt"):
62         while True:
63             print('Raspberry-pi servers are shutting down')
64             s.sendto(b'raspi_shutdown', (ADDRESS, PORT))
65             if (get_alivings(s) == 0):
66                 break
67             sleep(5)
68
69     if (msg == "alivings"):
70         print("Alivings:", get_alivings(s))
71
72 s.close()
73 sys.exit()
74
75 print('Done')
76
```