

```

1  import socket
2
3  # Global Variables
4  port = None
5  host = None
6
7
8  # Create Socket
9  def socket_create():
10     global host
11     global port
12     global s
13     host = "localhost"
14     port = 1001
15
16     try:
17         s = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
18         s.setsockopt(socket.SOL_SOCKET, socket.SO_REUSEADDR, 1)
19     except socket.error as msg:
20         print("Socket creation error: " + str(msg))
21
22
23  # State0
24  def state0():
25     global host
26     global port
27     global s
28
29     message = input("Message: ")
30     if message == "quit":
31         return None
32     else:
33         try:
34             s.sendto(message.encode('utf-8'), (host, port))
35         except socket.error as msg:
36             print("Error sending message: " + str(msg))
37
38     return state0
39
40
41  # Main Function
42  if __name__ == "__main__":
43     global s
44
45     # created socket
46     socket_create()
47
48     # Initial State
49     state = state0
50     while state:
51         state = state() # FSM Loop
52
53     s.close()
54     print("FSM Done")
55

```