```c
#include <sys/types.h>
#include <sys/socket.h>
#include <stdio.h>
#include <netinet/in.h>
#include <arpa/inet.h>
#include <unistd.h>
#include <stdlib.h>
#include <pthread.h>
#include <string.h>
#include <signal.h>

int sendState = 0;
int sockfd;
pid_t pid;

void *thread_recieveData(void *arg);
void *thread_sendSignal(void *arg);

int main (int argc, char *argv[])
{
  //Socket setup
  int result, len;
  struct sockaddr_in address;
  sockfd = socket(AF_INET, SOCK_STREAM, 0);
  address.sin_family = AF_INET;
  address.sin_addr.s_addr = inet_addr("192.168.0.142");
  address.sin_port = htons(9734);
  len = sizeof(address);
  result=connect(sockfd, (struct sockaddr *) &address, len);
  if (result == -1) {
    perror("oops: client2");
    exit(1);
  }
  //

  //Start threads
  pthread_t recieveThread;
  pthread_t sendThread;
  pthread_create(&recieveThread, NULL, thread_recieveData, NULL);
  pthread_create(&sendThread, NULL, thread_sendSignal, NULL);
  int gnuplotCreated;

  for(;;) {
    //IF ladder for choosing what to do
    char input[10];
    fgets(input, 10, stdin);
```

```
47      if(strcmp(input, "s\n") == 0) {
48        sendState = 1;
49      } else if(strcmp(input, "q\n") == 0) {
50        kill(pid, SIGINT);
51        break;
52      } else if(strcmp(input, "p\n") == 0 && !gnuplotCreated) {
53        gnuplotCreated = 1;
54        pid = fork();
55        if(pid == 0) {
56          execlp("gnuplot", "gnuplot", "plot.p", NULL);
57        }
58      }
59
60    }
61    printf("Closing Socket!\n");
62    close(sockfd);
63    exit(0);
64  }
65
66  //THREAD// recieving data from pi
67  void *thread_recieveData(void *arg) {
68    int recieve;
69    FILE *file = fopen("recieve.d", "w");
70    for(;;) {
71      read(sockfd, &recieve, sizeof(recieve));
72      fprintf(file, "%d\n", recieve);
73      fflush(file);
74    }
75    fclose(file);
76  }
77
78  //THREAD// sending signal to pi
79  void *thread_sendSignal(void *arg) {
80    for(;;) {
81      if(sendState) {
82        printf("%d\n", sendState);
83        sendState = 0;
84        write(sockfd, "s", 10);
85      }
86    }
87  }
```