Example: Signaling With Semaphore

```c
void *func(void *arg);
sem_t sem;
#define BUFSIZE 1024
char buf[BUFSIZE];

int main() {
  pthread_t t;

  if( sem_init(&sem, 0, 0) != 0 ) {}

  if( pthread_create(&t, NULL, func, NULL) != 0 ) {}

  puts("Please input some text. Ctrl-d to quit.");

  while( fgets(buf, BUFSIZE, stdin) )
    sem_post(&sem);

  sem_post(&sem);        /* in case of Ctrl-d */

  if( pthread_join(t, NULL) != 0) {}

  sem_destroy(&sem);   exit(EXIT_SUCCESS);
}

void *func(void *arg) {
  sem_wait(&sem);
  while( buf[0] != '\0' ) {
    printf("You input %ld characters\n", strlen(buf)-1);
    buf[0] = '\0';       /* in case of Ctrl-d */
    sem_wait(&sem);
  }
  pthread_exit(NULL);
}
```