xv6©-rev10
(Copyright Frans Kaashoek, Robert Morris, and Russ Cox.)
kill syscall

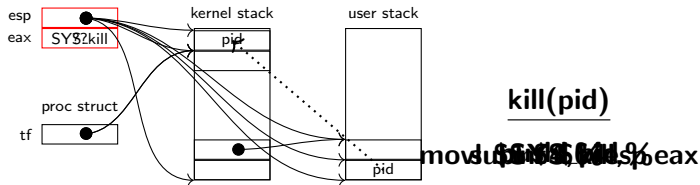Carmi Merimovich

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sys_kill

```
3779 int sys_kill(void) {
     int pid;

     if (argint(0, &pid) < 0)
      return −1;
     return kill(pid);
    }
```

kill invocation

esp
eax   SYS?kill

proc struct

tf

kernel stack

pid

user stack

kill(pid)

movl 6SX$84[10%
movsubl$4s,0%t,s,0eax

pid

$$\frac{\textbf{SYS\_kill()}}{\textbf{kill(pid)}}$$

kill

```
2975  int kill(int pid) {
       struct proc *p;

       acquire(&ptable.lock);
       for (p = ptable.proc; p < &ptable.proc[NPROC];p++){
        if (p->pid == pid) {
         p->killed = 1;
         // Wake process from sleep if necessary.
         if (p->state == SLEEPING)
          p->state = RUNNABLE;
         release(&ptable.lock);
          return 0;
        }
       }
       release(&ptable.lock);
       return -1;
```