

## User Program

```
main () {  
    file_open(arg1, arg2);  
}
```

(1) ↑ (6)

## User Stub

```
file_open(arg1, arg2) {  
    push #SYSCALL_OPEN  
    trap  
    return  
}
```

## (2) Hardware Trap

Trap Return

(5)

## Kernel

```
file_open(arg1, arg2) {  
    // do operation  
}
```

(3) ↑ (4)

## Kernel Stub

```
file_open_handler() {  
    // copy arguments  
    // from user memory  
    // check arguments  
    file_open(arg1, arg2);  
    // copy return value  
    // into user memory  
    return;  
}
```