

```
/*
```

```
* hello-1.c – The simplest kernel module.
```

```
*/
```

```
#include <linux/module.h> /* Needed by all modules */
```

```
#include <linux/kernel.h> /* Needed for KERN_INFO */
```

```
int init_module(void)
```

```
{
```

```
    printk(KERN_INFO "Hello world 1.\n");
```

```
/*
```

A non 0 return means init_module failed; module can't be loaded. printk() messages get printed to your console rather than just logged to your logfile

```
*/
```

```
    return 0;
```

```
}
```

```
void cleanup_module(void)
```

```
{
```

```
    printk(KERN_INFO "Goodbye world 1.\n");
```

```
}
```

```
/*makefile*/
```

```
obj-m += hello-1.o
```

```
all:    make -C /lib/modules/$(shell uname -r)/build M=$(PWD) modules
```

```
clean:  make -C /lib/modules/$(shell uname -r)/build M=$(PWD) clean
```

```
/*build commands*/
```

```
make -C /lib/modules/$(uname -r)/build M=$(pwd) modules
```

```
insmod hello.ko
```

*/*How to check results*/*

You should now check **dmesg**. The last line should print **Hello World :)**.

Now remove it using **rmmod hello**. **dmesg** should now print **Goodbye World!**.