

Instructions for Programming in Linux

In case you want to use Linux OS, you first need to have following applications installed on the Linux machine:

1. Install gcc-avr
2. Install avr-libc
3. Install avrdude

```
sudo apt-get install gcc-avr avr-libc avrdude
```

You can use any editor to write program for robot.

1. Commands for compiling the C code using avr-gcc:

```
avr-gcc -Os -DF_CPU=14745600 -mmcu=atmega2560 -c test.c  
avr-gcc -DF_CPU=14745600 -mmcu=atmega2560 -o test.elf test.o  
avr-objcopy -O ihex test.elf test.hex
```

2. Programming ATmega2560 using avrdude

```
sudo avrdude -c stk500v2 -p m2560 -P /dev/ttyACM0 -U flash:w:test.hex
```

3. Programming ATmega328p using avrdude

```
sudo avrdude -p m328p -P /dev/ttyUSB0 -c arduino -b 57600 -v -D -U flash:w:"test.hex":i
```

Note: Replace *test* with your filename.