

# Memulai Dengan Arduino Uno

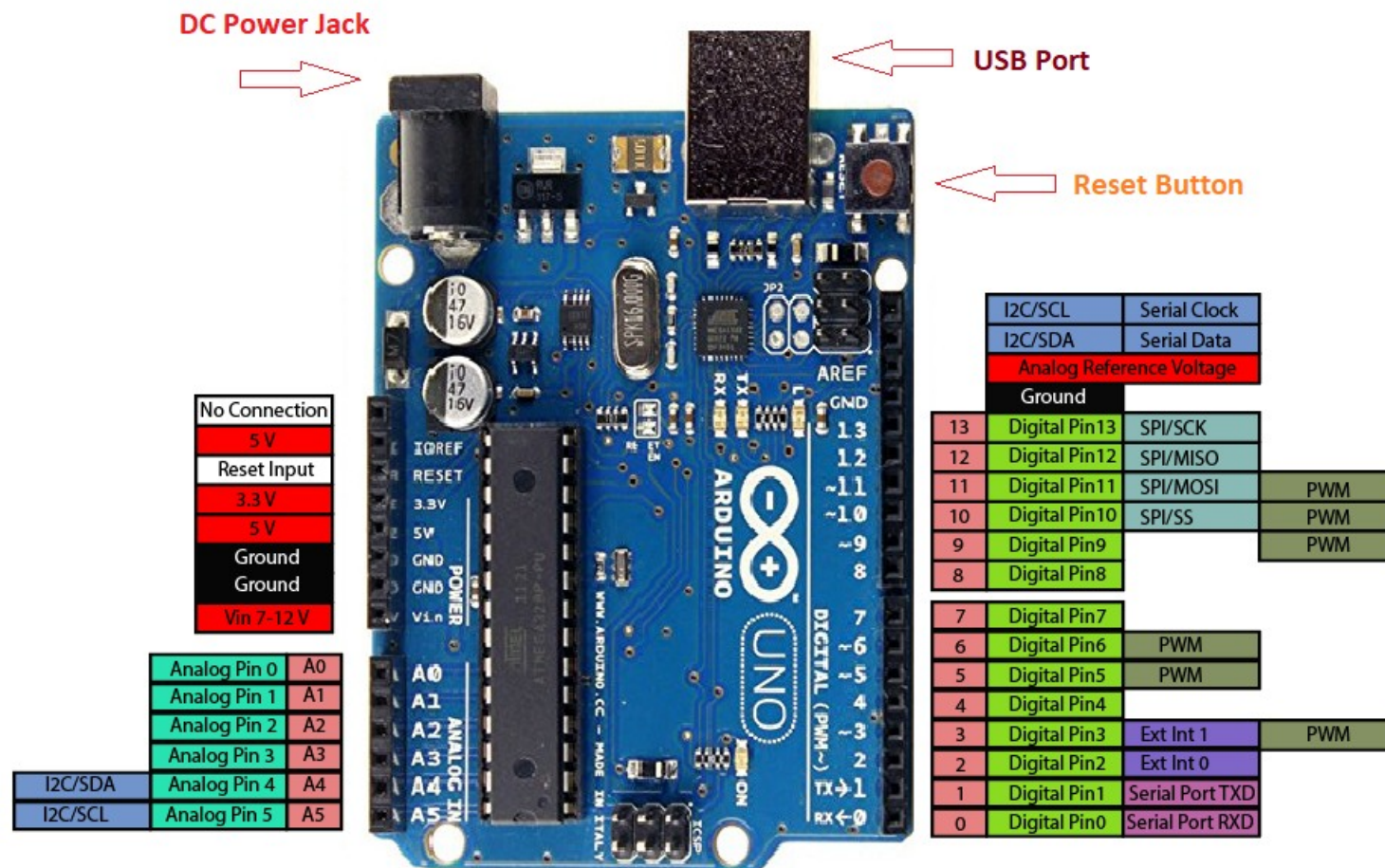
Embended System Pertemuan 3

Oleh:  
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# Microcontroller Arduino Uno



# Arduino Uno Pinout



# Install Software Arduino(Linux)

- Install Arduino IDE 1.8. 2 on Linux
- Step 1: Download the Arduino IDE. Go to [www.arduino.cc](http://www.arduino.cc) => Software and download the package which fits to your system. ...
- Step 2: Extract. Go to your Downloads directory and right-click on the downloaded arduino-1.8. ...
- Step 3: Open Terminal. ...
- Step 4: Installation.

# Download

## Download the Arduino IDE



### ARDUINO 1.8.2

The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. It runs on Windows, Mac OS X, and Linux. The environment is written in Java and based on Processing and other open-source software.

This software can be used with any Arduino board. Refer to the [Getting Started](#) page for installation instructions.

**Windows** Installer

**Windows** ZIP file for non admin install

**Windows app** [Get](#) 

**Mac OS X** 10.7 Lion or newer

**Linux** 32 bits

**Linux** 64 bits

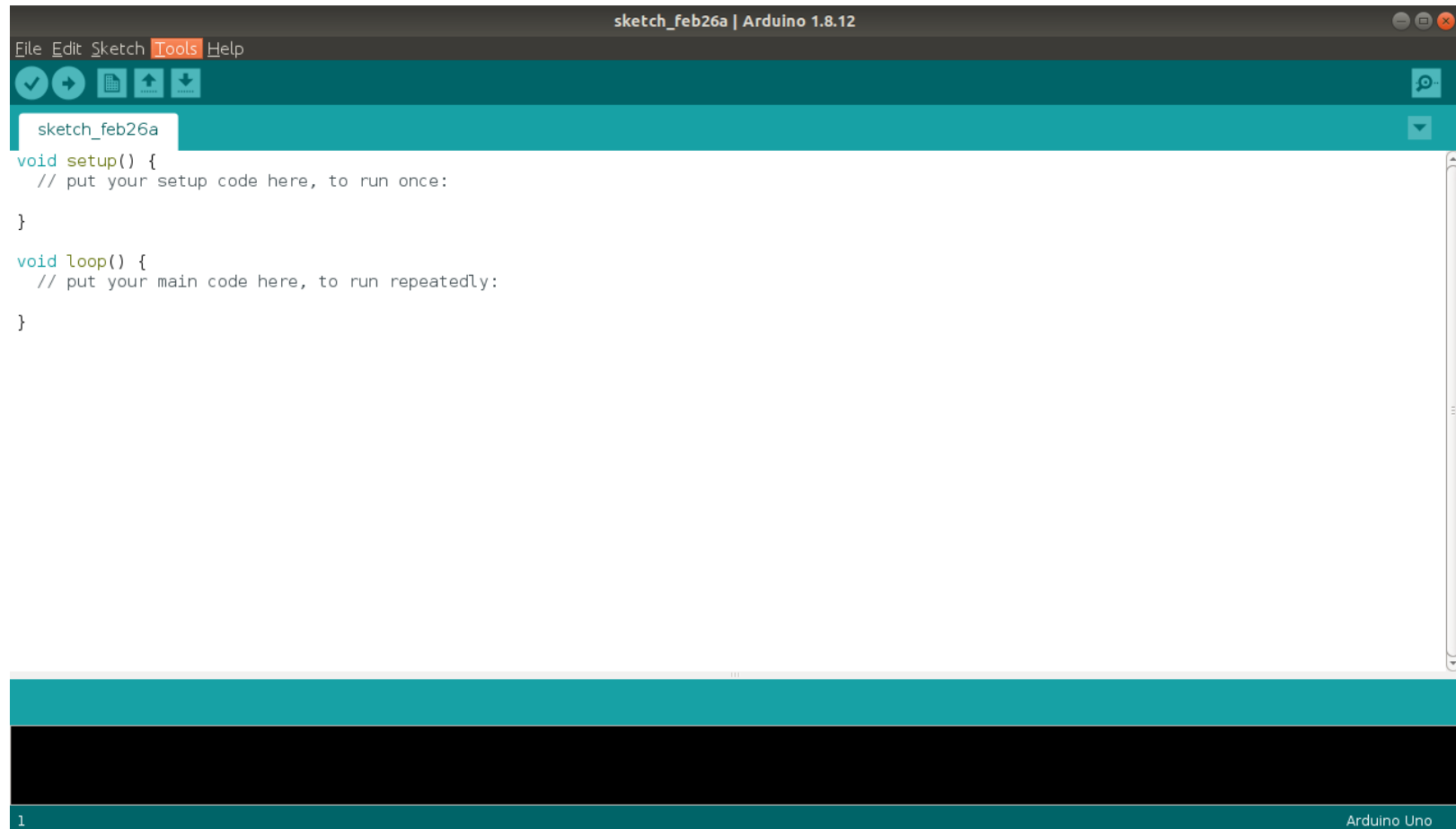
**Linux** ARM

[Release Notes](#)

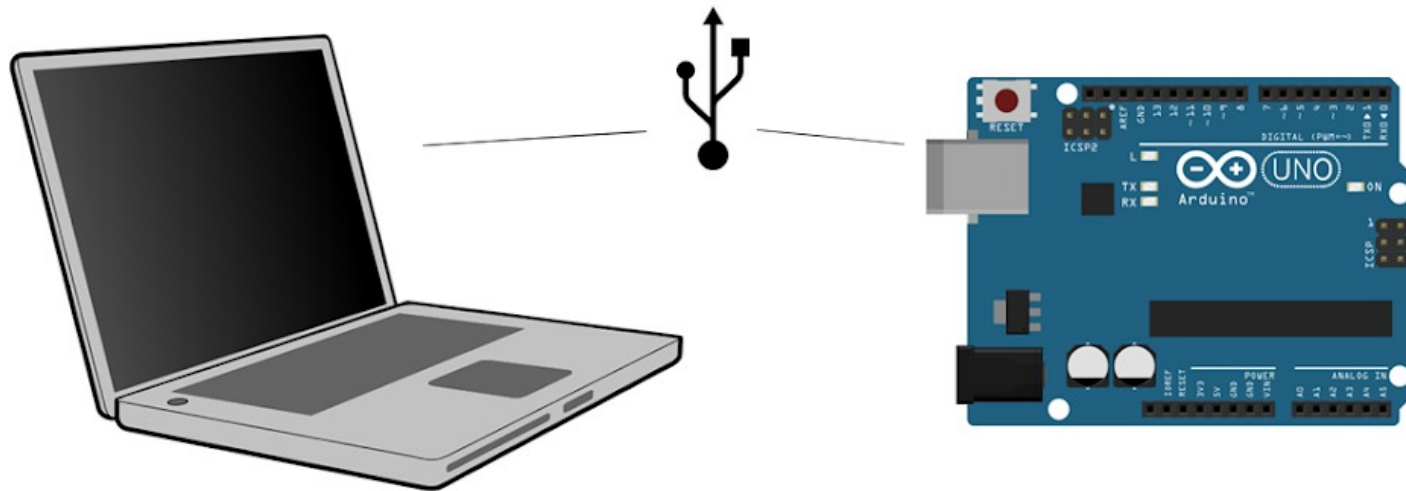
[Source Code](#)

[Checksums \(sha512\)](#)

# Open Arduino IDE

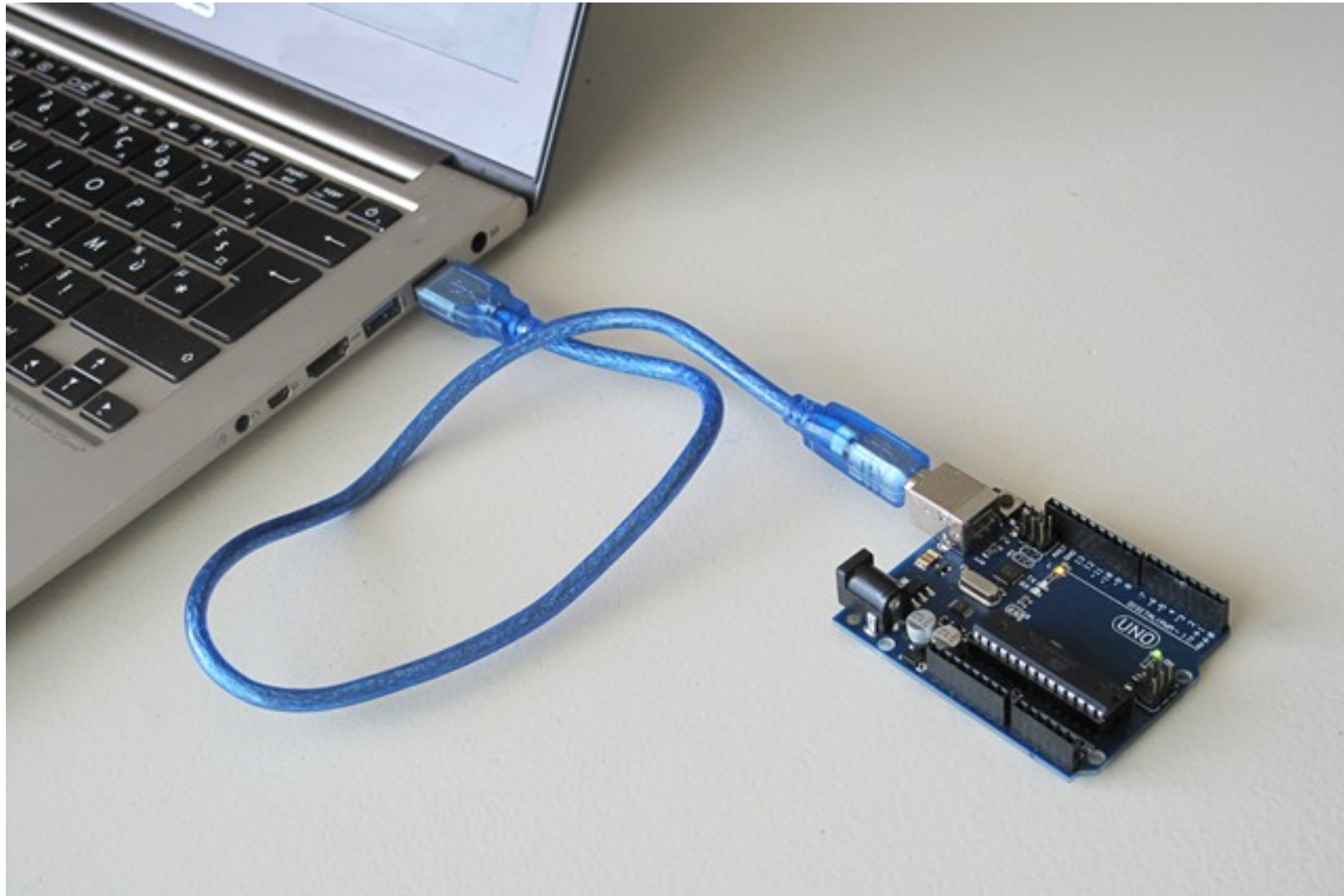


# Sambungkan Arduino Uno



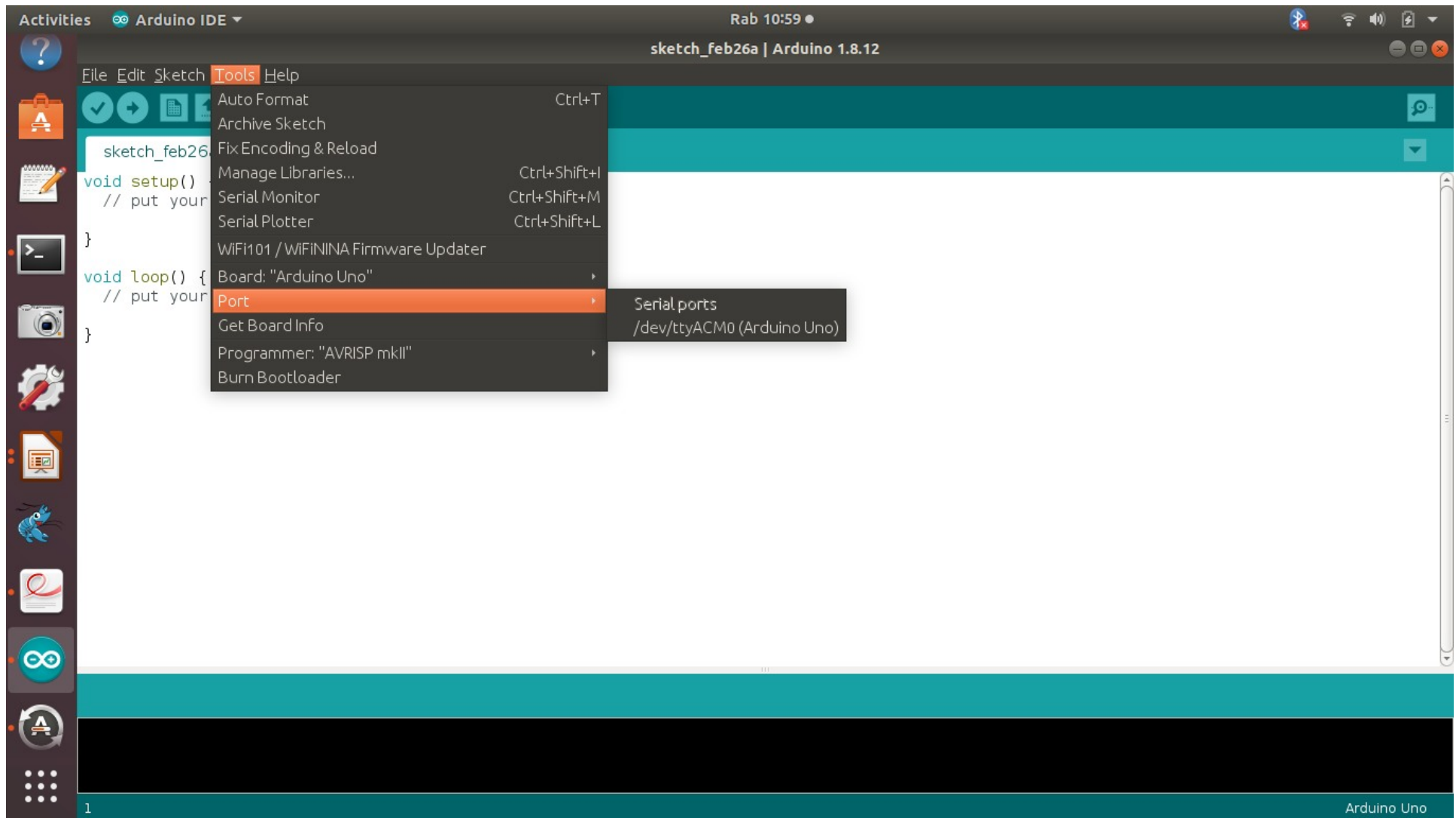


# Sambungkan Arduino Uno





# Tools : Port



# Cek port dari command line

```
rudyg@rudyg-HP-14-Notebook-PC: ~/Documents/USB_YPKP/ELEKTRO/EMBEDED/arduino-1....  
File Edit View Search Terminal Help  
rudyg@rudyg-HP-14-Notebook-PC:~/Documents/USB_YPKP/ELEKTRO/EMBEDED/arduino-1.8.1  
2$ dmesg | tail  
[ 8971.840091] systemd[1]: Started Journal Service.  
[ 9181.406655] usb 2-3: new full-speed USB device number 3 using xhci_hcd  
[ 9181.556842] usb 2-3: New USB device found, idVendor=2341, idProduct=0043, bcd  
Device= 0.01  
[ 9181.556844] usb 2-3: New USB device strings: Mfr=1, Product=2, SerialNumber=2  
20  
[ 9181.556846] usb 2-3: Manufacturer: Arduino (www.arduino.cc)  
[ 9181.556847] usb 2-3: SerialNumber: 95634313632351F0E0F1  
[ 9183.279384] cdc_acm 2-3:1.0: ttyACM0: USB ACM device  
[ 9183.280710] usbcore: registered new interface driver cdc_acm  
[ 9183.280711] cdc_acm: USB Abstract Control Model driver for USB modems and ISD  
N adapters  
[ 9478.938394] audit: type=1400 audit(1582689501.994:120): apparmor="ALLOWED" op  
eration="open" profile="libreoffice-soffice" name="/home/rudyg/.local/share/mime  
/mime.cache" pid=10710 comm="soffice.bin" requested_mask="r" denied_mask="r" fsu  
id=1000 ouid=0  
rudyg@rudyg-HP-14-Notebook-PC:~/Documents/USB_YPKP/ELEKTRO/EMBEDED/arduino-1.8.1  
2$
```

# Error Saat Upload

- Sketch uses 924 bytes (2%) of program storage space. Maximum is 32256 bytes.
- Global variables use 9 bytes (0%) of dynamic memory, leaving 2039 bytes for local variables. Maximum is 2048 bytes.
- avrdude: ser\_open(): can't open device "/dev/ttyACM0": Permission denied
- Problem uploading to board. See <http://www.arduino.cc/en/Guide/Troubleshooting#upload> for suggestions.

Perlu di beri akses ke port tersebut /dev/ttyACM0

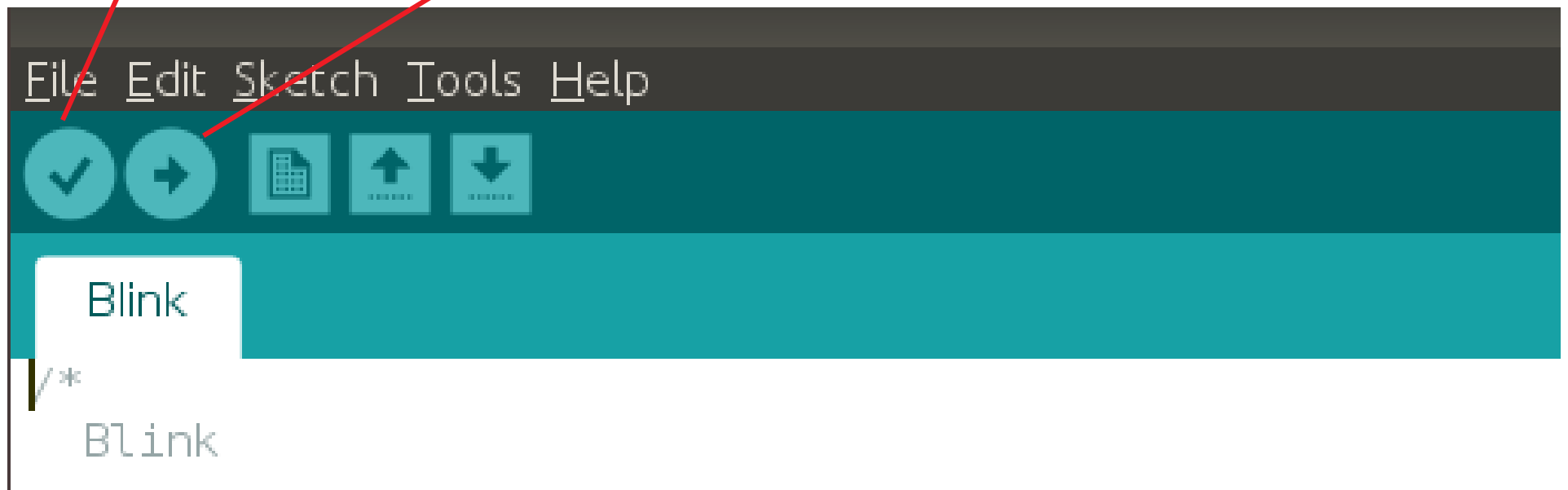
# Untuk Komputer Linux

- `sudo chmod a+rw /dev/ttyACM0`

```
rudyg@rudyg-HP-14-Notebook-PC:~/Documents/USB_YPKP/ELEKTRO/EMBEDED/arduino-1.8.1
2$ sudo chmod a+rw /dev/ttyACM0
[sudo] password for rudyg:
rudyg@rudyg-HP-14-Notebook-PC:~/Documents/USB_YPKP/ELEKTRO/EMBEDED/arduino-1.8.1
2$
```

Verifikasi/compiling

Upload ke  
Arduino



# Tugas I

1. Lakukan Intallasi Program Sketch (Arduino IDE) di komputer masing-masing.
2. Sambungkan dengan Arduino yang anda punya/pinjam