Fritzing
軟體使用說明

台灣大學
電機工程學系

電子實驗室 大助教

Program

Download, Install, Use

Download

- Link: http://fritzing.org/download/
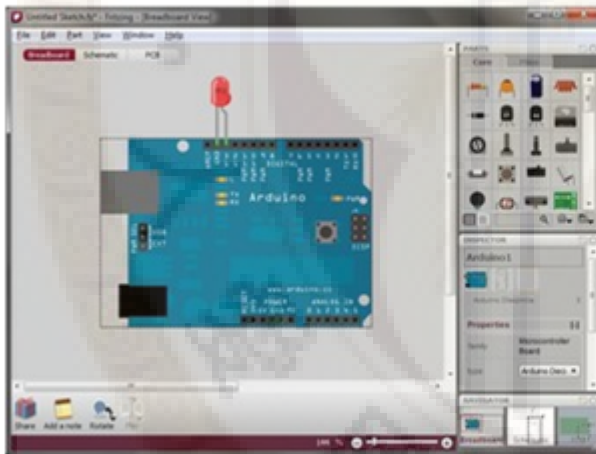- Click 「Windows」 and 「Source tarball」 to download the files.

DOWNLOAD

We're very happy that you are interested in evaluating Fritzing. Please be aware that while you can already do serious stuff with it, we make no guarantees about anything.

Latest release: 0.7.11b | Jan. 3, 2013
↓ Windows ↓ Source tarball ↓ Mac OS X 10.5 ↓ Linux (64-bit) ↓ Linux (32-bit)

- Or directly click the link to download all the necessary files. → Link.

Install

- Unzip the downloaded files:
- (1) Unzip「fritzing.2013.01.02.pc」to a new folder.
- (2) Unzip「fritzing-0.7.11b.source.tar」to a new folder.
- (3) Move all the unzip folders from「fritzing-0.7.11b.source.tar」to
 「fritzing.2013.01.02.pc」folder and select「Yes」
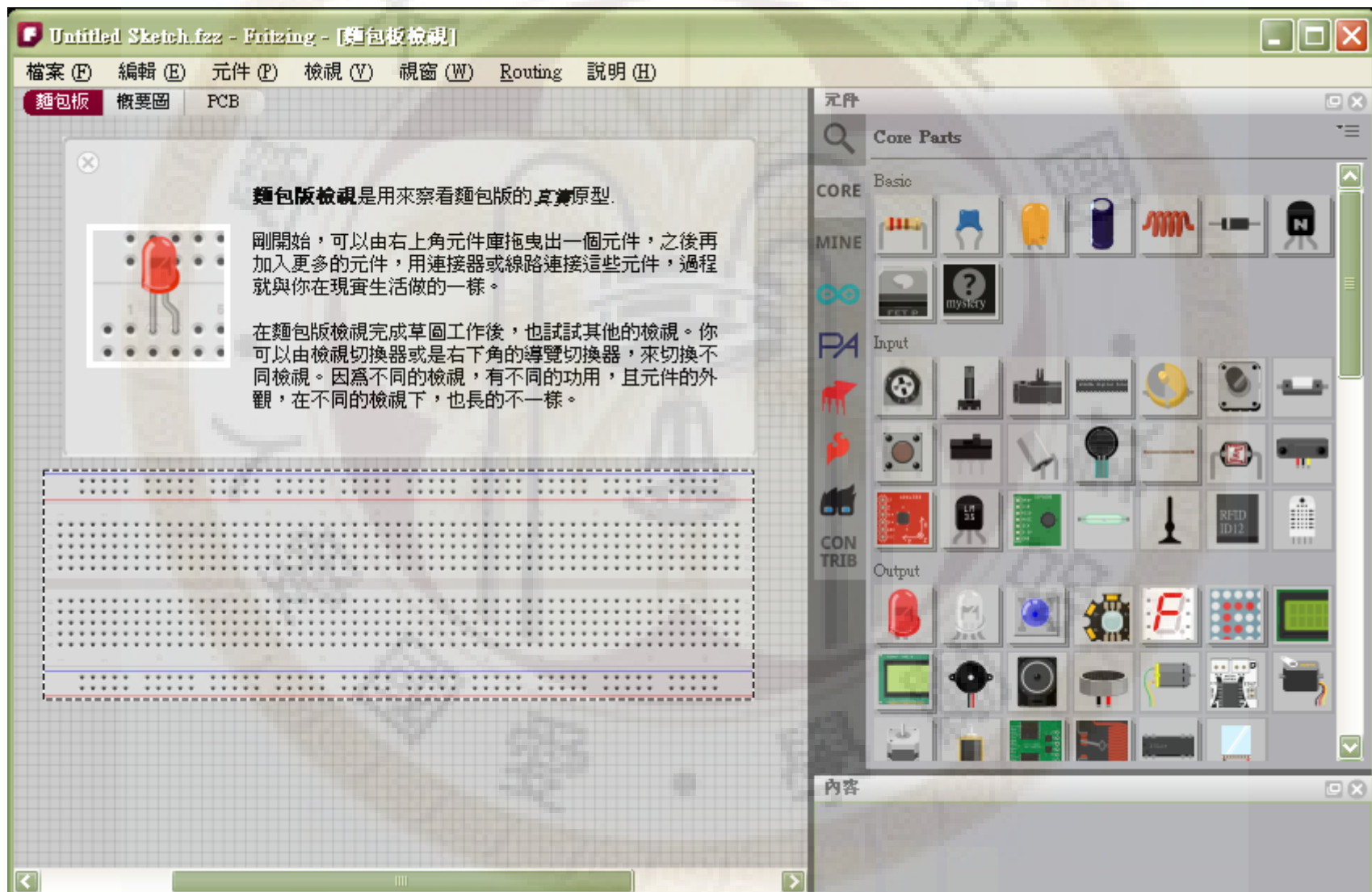 to replace all the identical files.
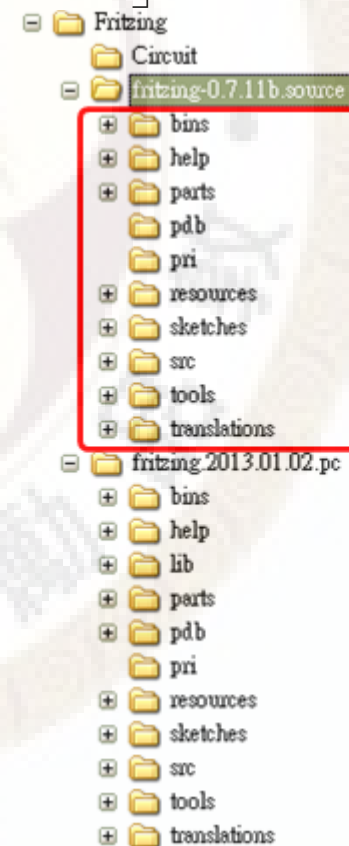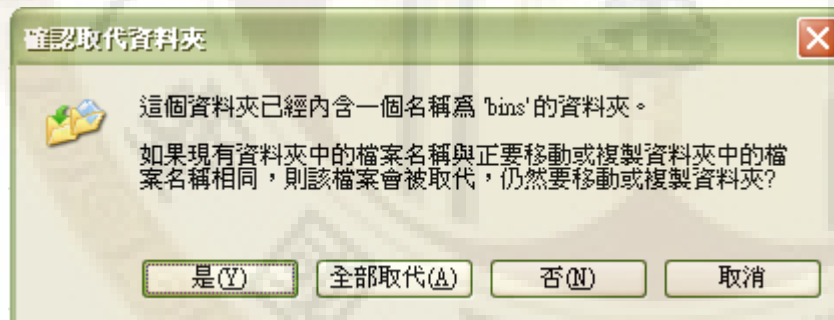
Start

- In 「fritzing.2013.01.02.pc」folder, double click 「Fritzing.exe 」file to start using the program.
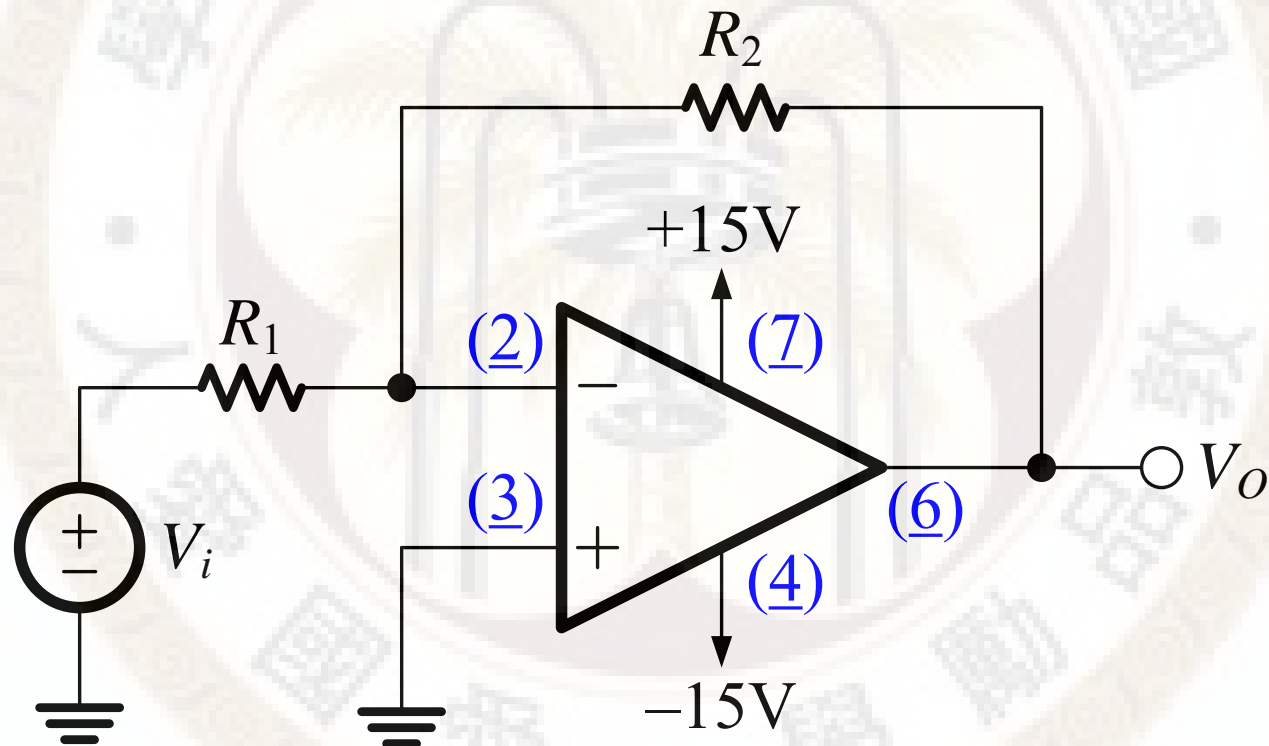
Start

Breadboard Layout

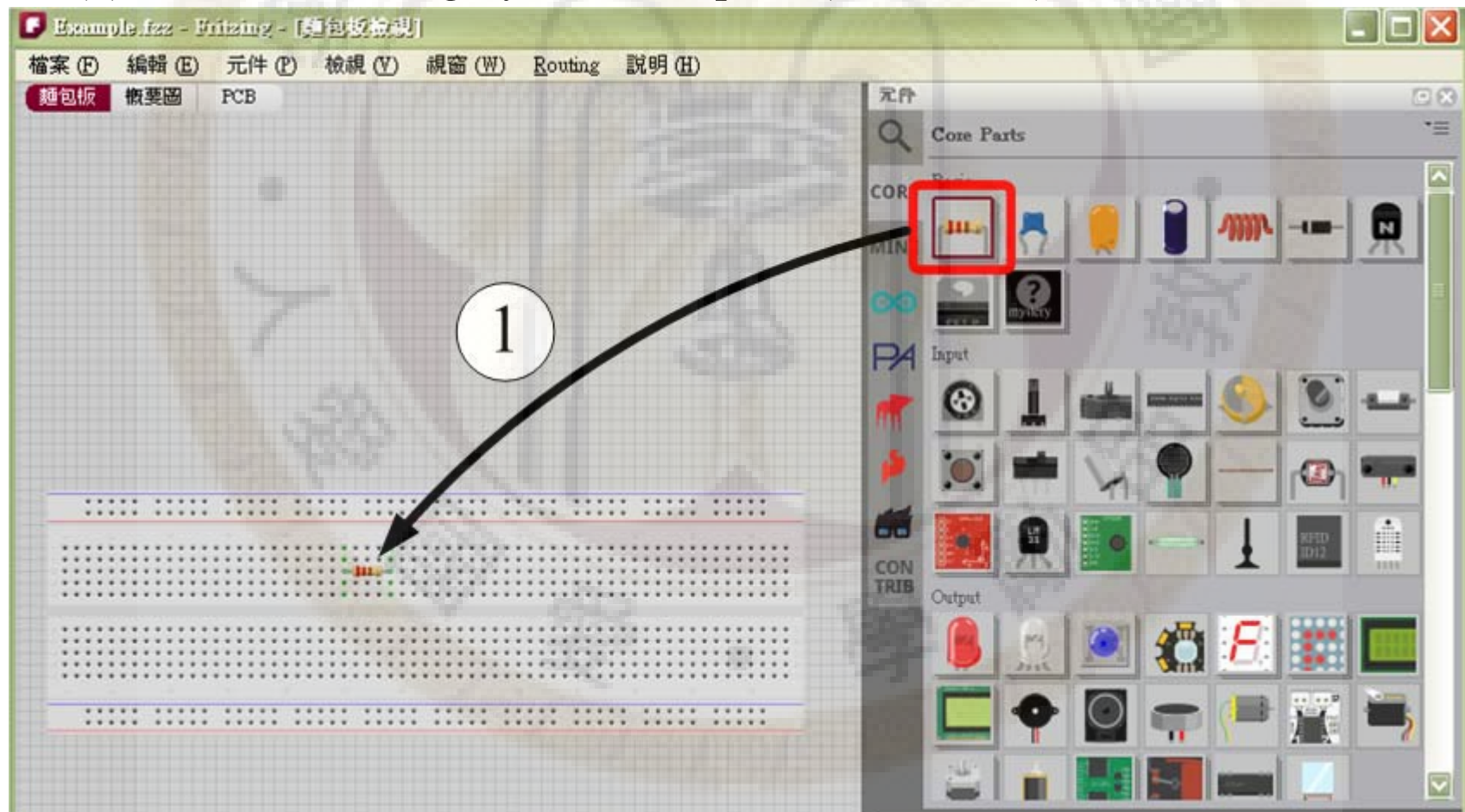Inverting OP-Amp Circuit

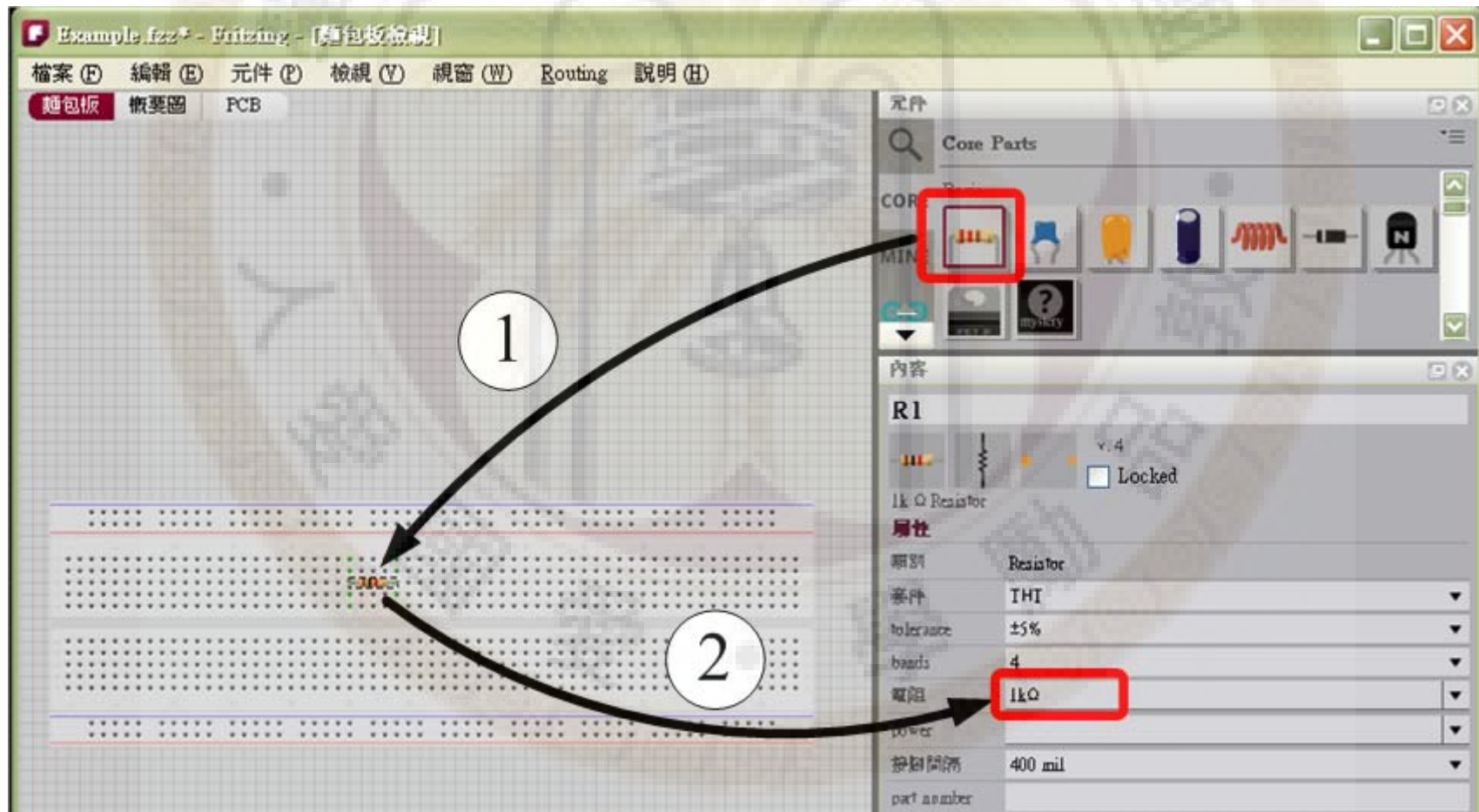# Example

- Inverting OP-Amp circuit.

Draw **R**

- In the components window (元件視窗), select **CORE** page,
- (1) In the **basic** category, draw the parts (ex. R, L, C) to the breadboard.
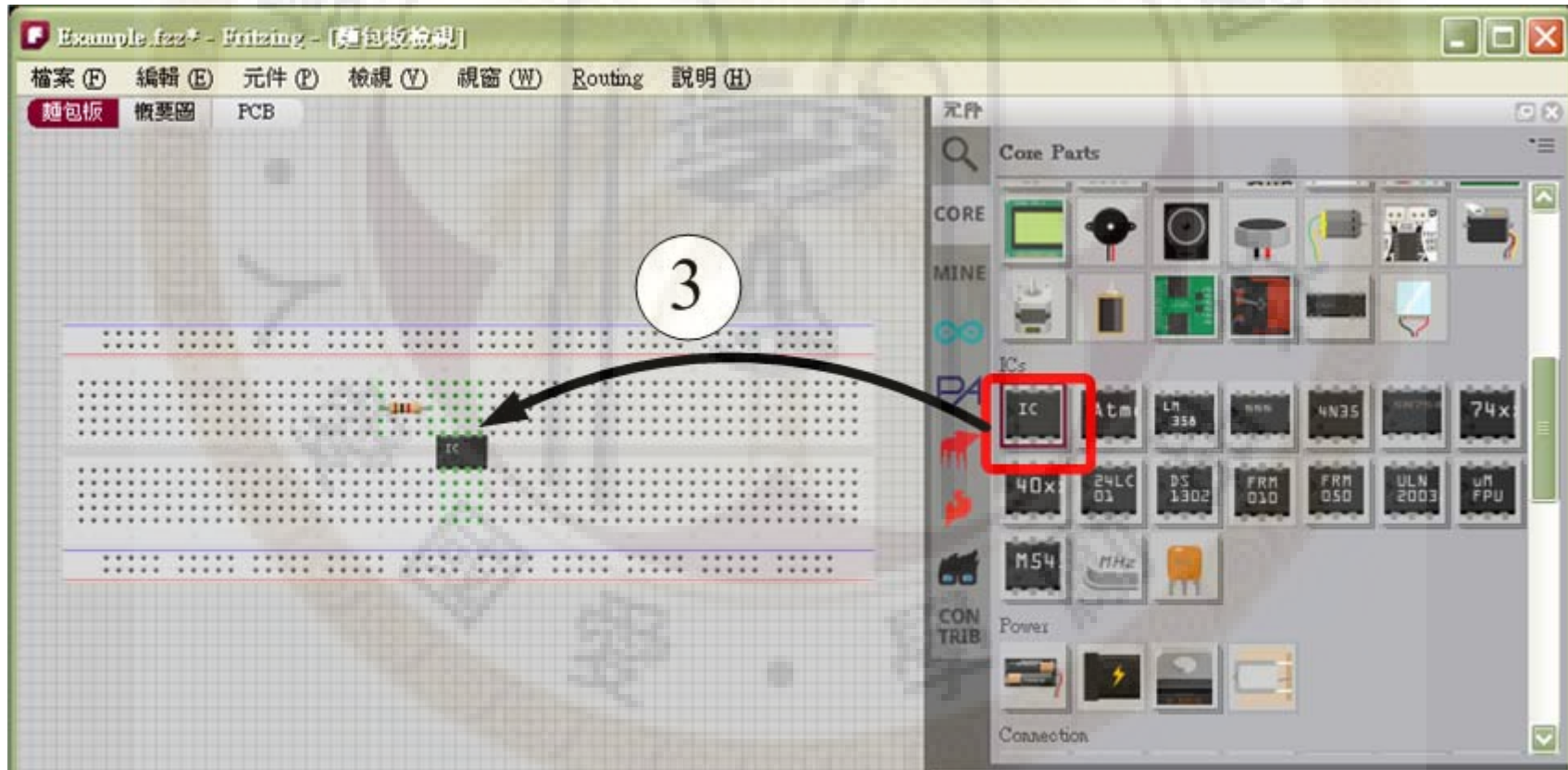
Edit **R**

- In the Property window (內容視窗), Select the **R** parts on the breadboard,
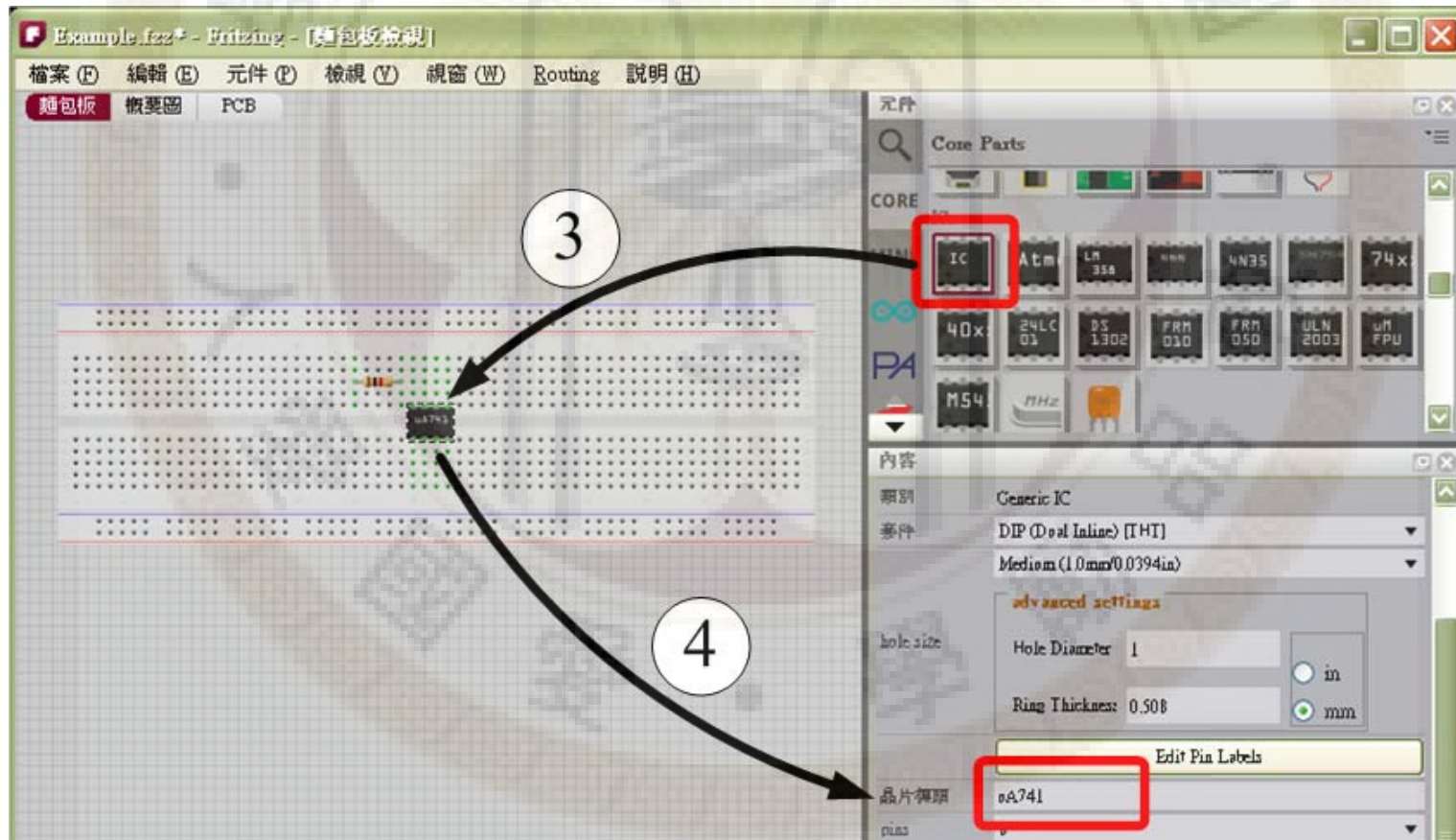- (2) Change the resistance value (電阻) to what you need (ex. 1 kΩ)

Draw **ICs**

- In the components window (元件視窗), select **CORE** page,
- (3) In the **ICs** category, draw the parts (ex. **Blank** IC) to the breadboard.

Edit **ICs**

- In the Property window (內容視窗), Select the **ICs** parts on the breadboard,
- (3) Change the Chip Title (晶片標頭) to what you need (ex. μA741)

Draw **Wires**

- In the BB (Breadboard) window (麵包板視窗), use mouse to draw wires,
- (3) Constantly click the right button of the mouse, positioning to one point on the BB, move the mouse to the next point of the BB, to draw wire on it.
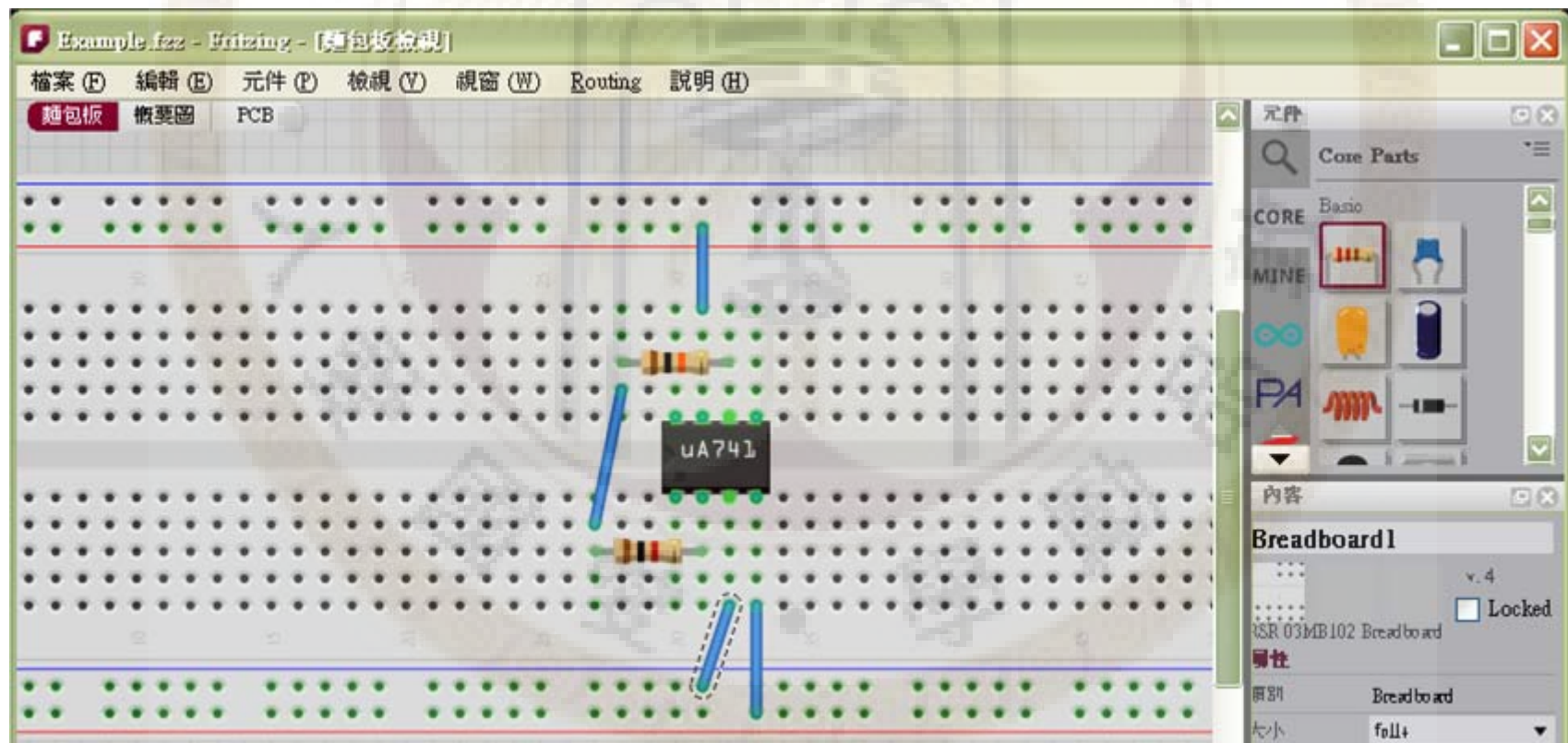
Place **Text**

- In the components window (元件視窗), select **CORE** page,
- (1) In the麵包板檢視 category, draw the **text** parts to the breadboard.
- (2) Select the **text** parts on the breadboard, change the logo of the text to what you want(ex. GND, -15V, +15V etc.)
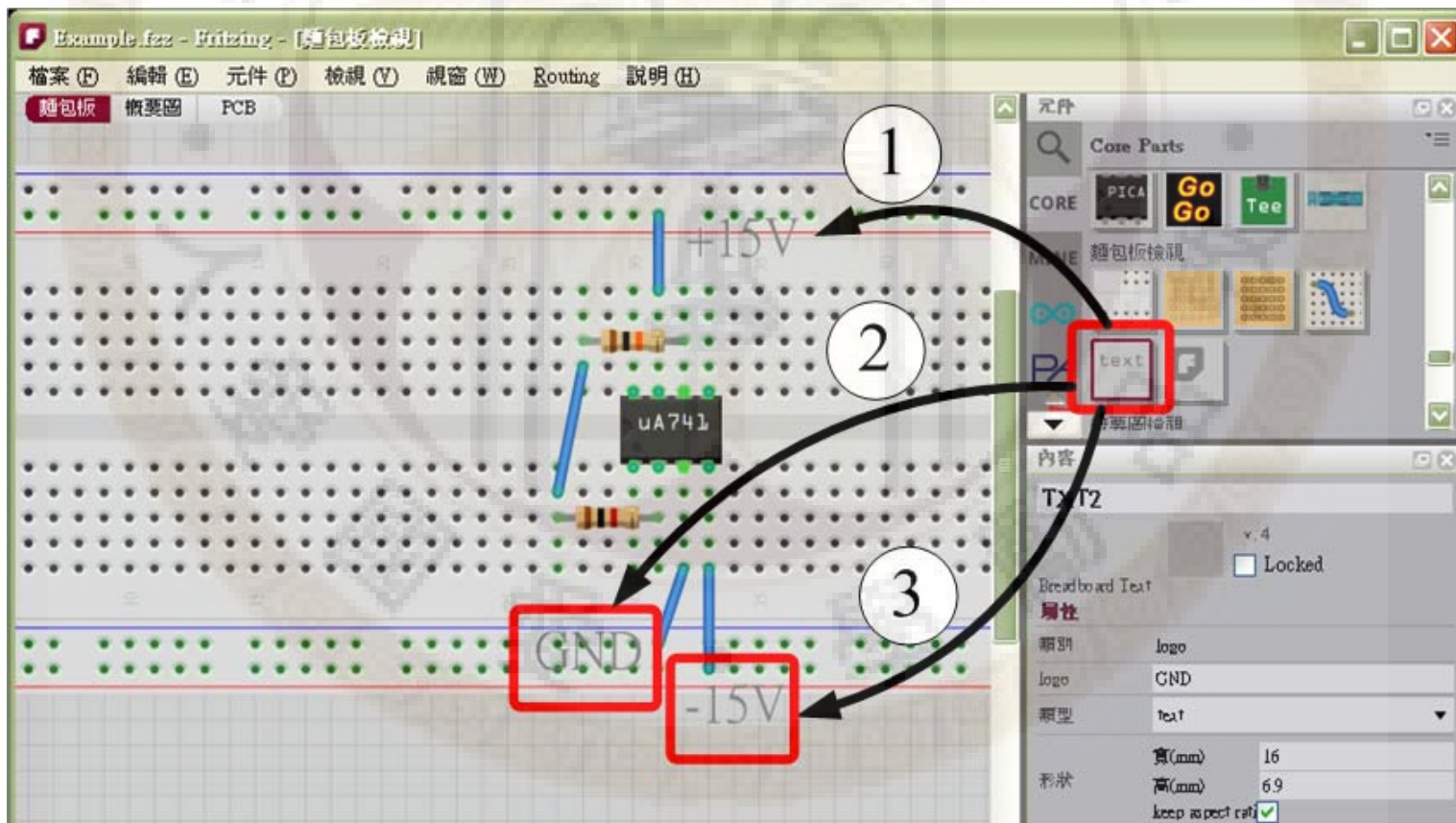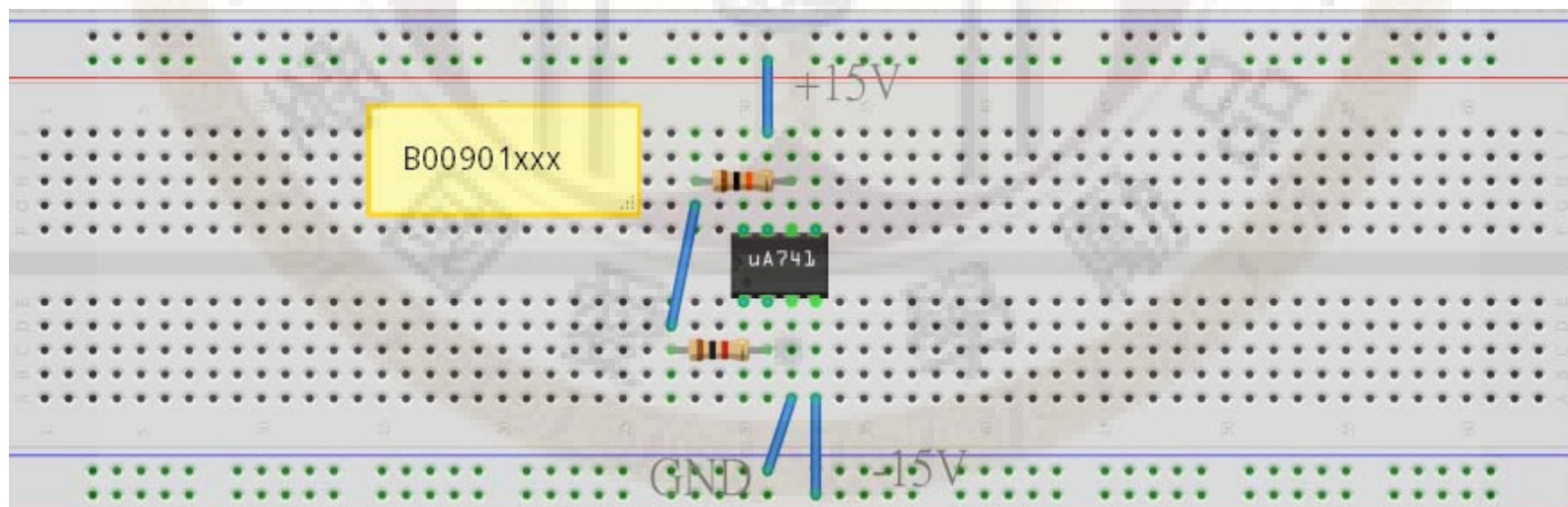
Layout Principles

Breadboard Layout Principles

3 Principles

- (1) The more identical to the schematic, the better.
- (電路佈置盡可能地與電路圖一致)
- (2) Active components are the first, passive components the later, and wire connections are the end.
- (Layout時，首先放置主動元件，再者放置被動元件，最後才是接線。)
- (3) The shorter, the better wire connection, and avoid cross the wires.
- (Layout之接線路徑，愈短愈好，並且盡量避免彼此跨線。)

Report

Copy layout to your report

Place **Note**

- In the BB (Breadboard) window (麵包板視窗),
- (1 Draw the **place note** (增加註解) to the breadboard.
- (2) Select the **note** on the breadboard, change the note your student ID (ex. B00901xxx.)

Submit BB Layout

- Use Print Screen key to copy the BB layout on the paint (小畫家) software.
- Cut the BB to the proper size and copy the BB layout to your pre-lab report.

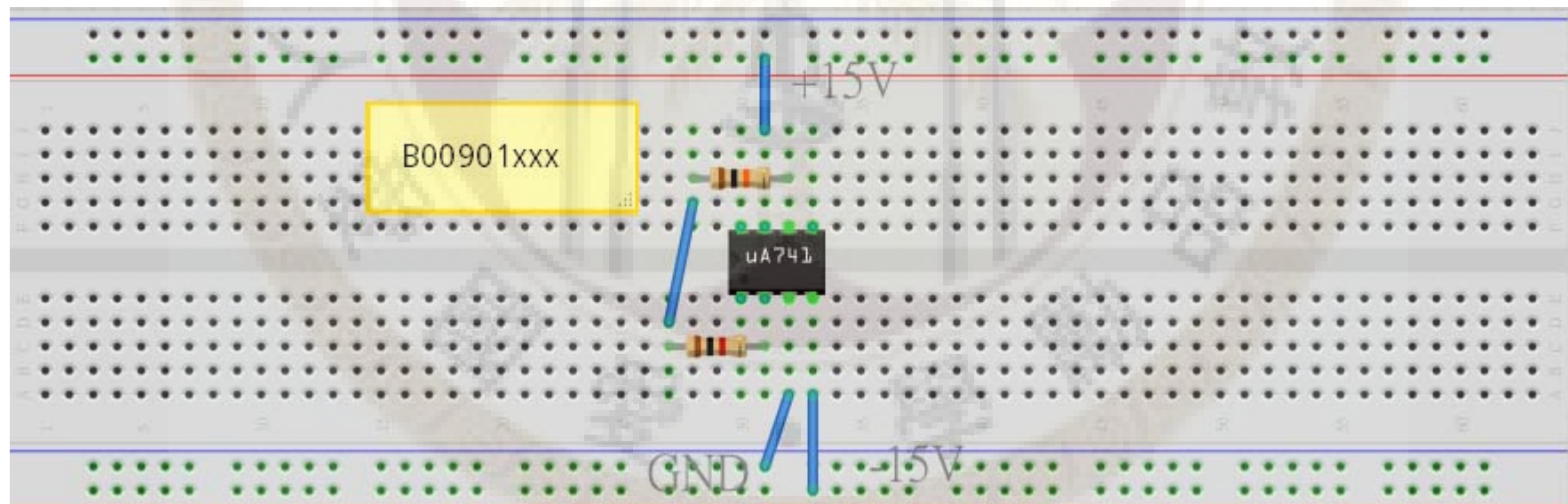- **Note**. The layout will not be scored without attaching the note with student ID.

Submit Layout

- In the BB (Breadboard) window (麵包板視窗),
- (1 Draw the **place note** (增加註解) to the breadboard.
- (2) Select the **note** on the breadboard, change the note your student ID (ex. B00901xxx.)