

# Visual programming

Scratch like programming

# There are many options for visual programming in Arduino

- mBlock
  - <http://www.mblock.cc>
- S4A
  - <http://s4a.cat/>
- Transformer
  - <http://www.kodorobot.com/download.html>
- TinkerCad
  - <https://www.tinkercad.com>
- Linkit BlocklyDuino
  - <https://docs.labs.mediatek.com/linkit-7697-blocklyduino/blocklyduino-12880262.html>
- BlocklyDuino
  - <https://blocklyduino.github.io/BlocklyDuino/blockly/apps/blocklyduino/>

# mBlock

<http://www.mblock.cc>

- mBlock is the most commonly installed and used solution
- mBlock 5 is a beta version, mBlock 3 is still available
- Currently mBlock 5 does not support Arduino boards
- Download and install (If prompt for unsafe driver, click continue)
- Go into the Arduino Programming Mode
  - Extensions – Arduino
  - Edit – Arduino Mode
  - Boards – Arduino Uno
  - Plug in the Arduino Uno and then Connect – Serial port
  - Click Upload to Arduino when finished coding

# S4A and Transformer

- Both need download and installation
  - The installation is a bit tricky and crumsy
  - Not recommend
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- If you are interested to try on it, you may download the article by me from [http://www.hkace.org.hk/downloads/arduino\\_leungsir/HKACE%20install%20Blocky%20for%20arduino.pdf](http://www.hkace.org.hk/downloads/arduino_leungsir/HKACE%20install%20Blocky%20for%20arduino.pdf)

# TinkerCad

<https://www.tinkercad.com>

- All web based
- Need to sign up with user account
- With simulation
- Generated source code is neat and tidy
- But cannot upload to Arduino board

# Linkit BlocklyDuino

<https://docs.labs.mediatek.com/linkit-7697-blocklyduino/blocklyduino-12880262.html>

- Fully web based
- No installation no sign up
- Very similar to BlocklyDuino but cannot upload to Arduino board

# BlocklyDuino

<https://blocklyduino.github.io/BlocklyDuino/blockly/apps/blocklyduino/>

- Web based
- Generates neat and tidy source code
- Web version with an UPLOAD button, but cannot upload
- You need to install local server for successful loading
- You may download the article by me from