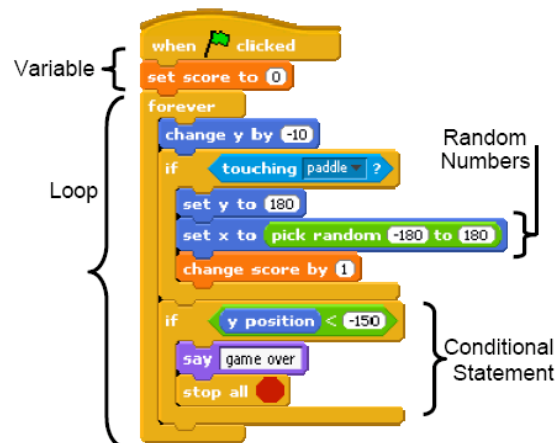# LEAP MOTION & SCRATCH WORKSHOP

INTRODUCTION

This workshop allows you to write programs that respond to the movements of your hands!

Scratch is the programming framework that is thought in many primary and secondary schools. It allows to write simple programs using blocks:

Leap Motion is an infrared detector that maps the position of your hands in space. It can track individual fingers and hand positions and use to control the computer
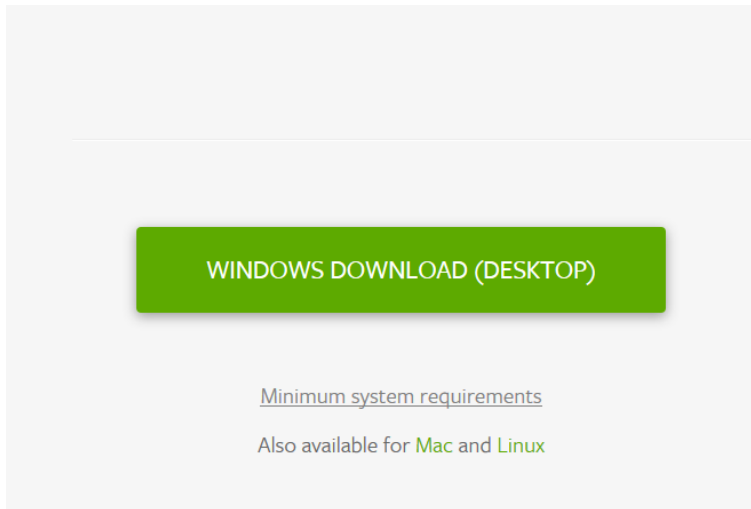

Important: **You must complete the setup steps described below before coming to Devoxx4kid. Otherwise you will lose time during the session and might lag behind the rest of the group.**
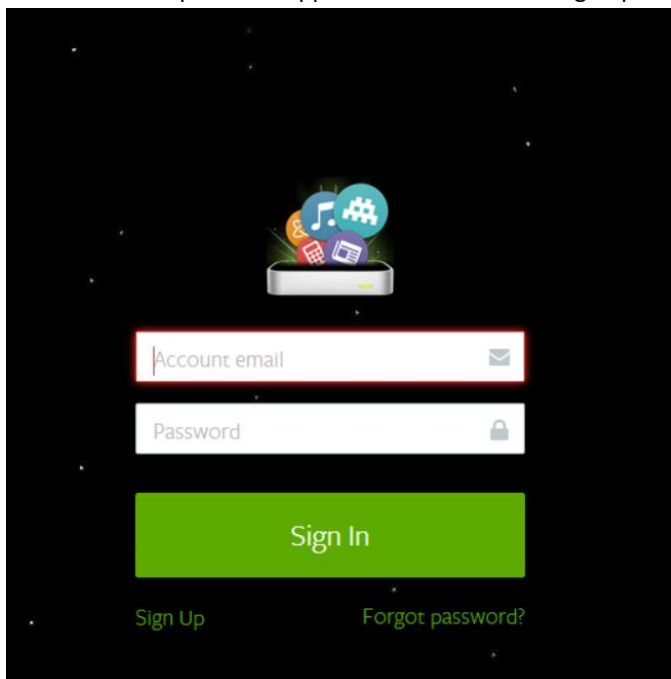
Important: To join this workshop, you must bring a Windows or Mac laptop (no support for Ubuntu or other Linux distribution

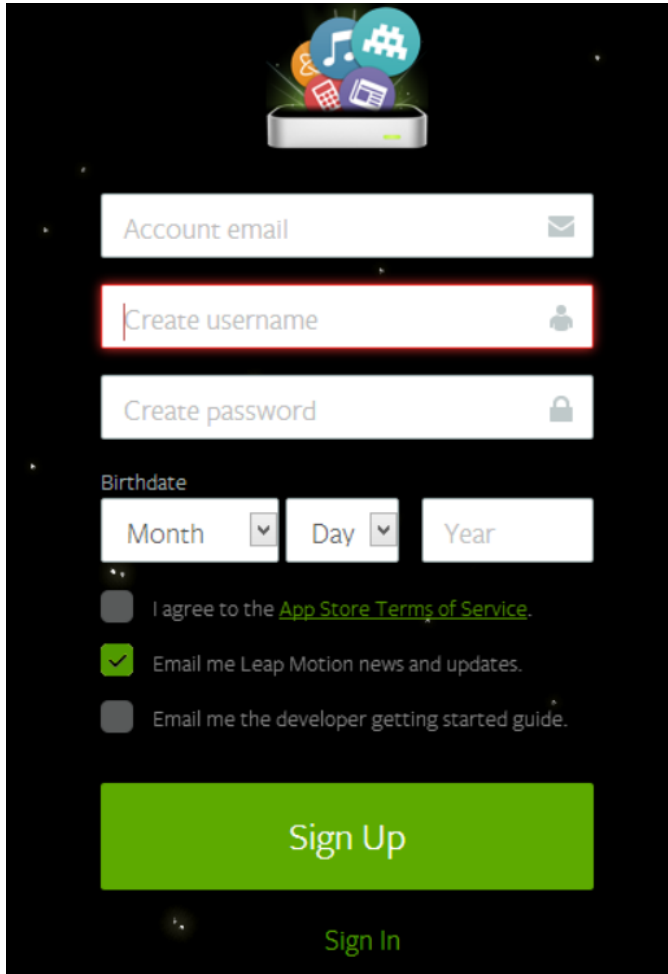## INSTALLING THE LEAP MOTION DEVICE

1. go to https://www.leapmotion.com/setup and download the Leap software for your computer (Mac Or Windows):

2. Install the downloaded Leap software (just launch the file and press Next, Next, Next etc....)
3. Launch the "Leap Motion app Home" and click the Sign up button

4. On the Leap App store page, create an account with your email address, your name and password

5. Important: Make sure you remember or write down the email used for signing up and the password. You will need it during the workshop.
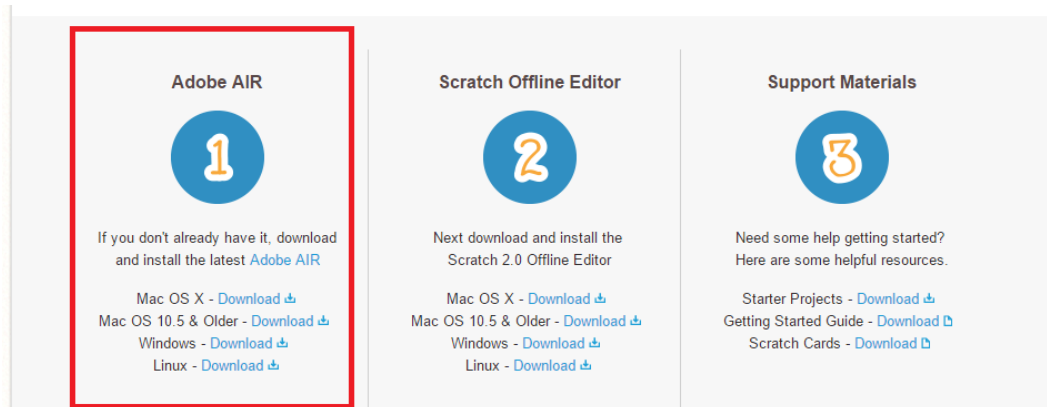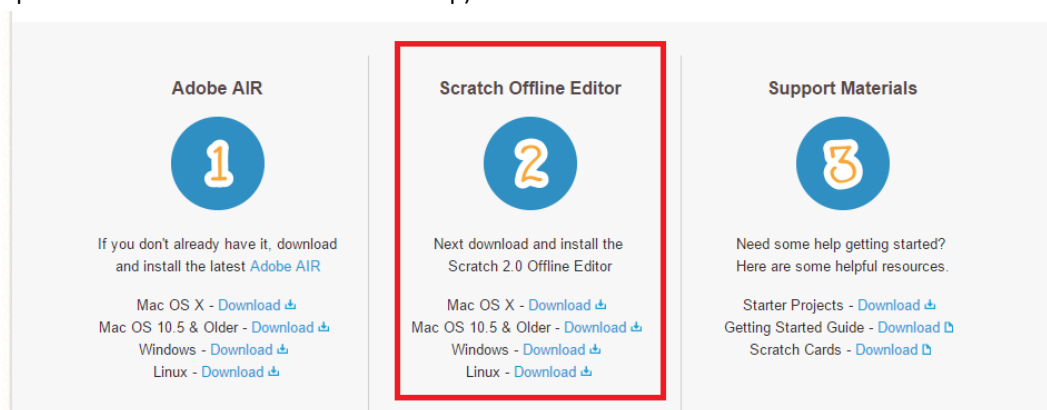6. Once logged in you should see the Leap Home page:

INSTALLING SCRATCH

For this workshop you must install the Scratch Offline editor. This might be different than the Scratch editor that you are used to using at school. Make sure to follow the instruction below

1. Make sure you have Java installed. If you don't know how to do this, you can follow this link.
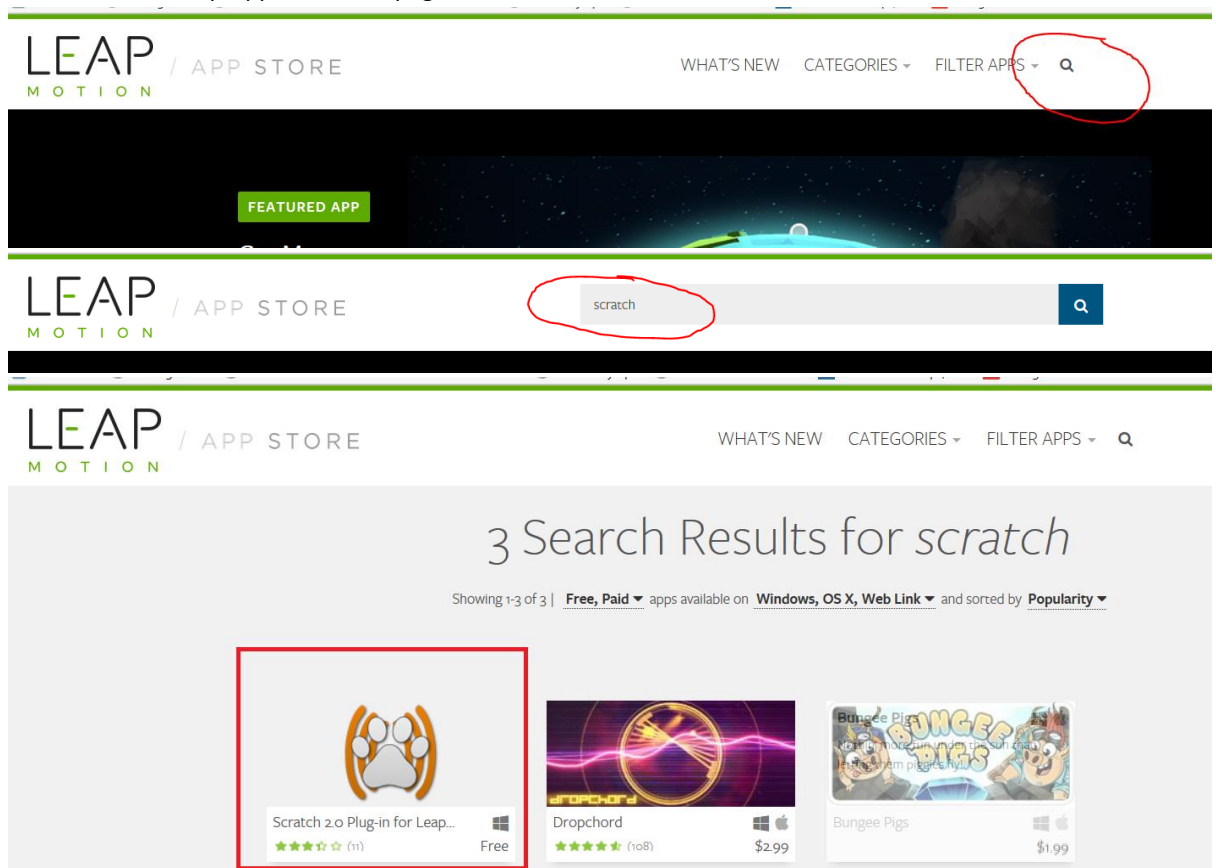2. Go to https://scratch.mit.edu/scratch2download/

3. If you don't have Adobe Air download and install it:
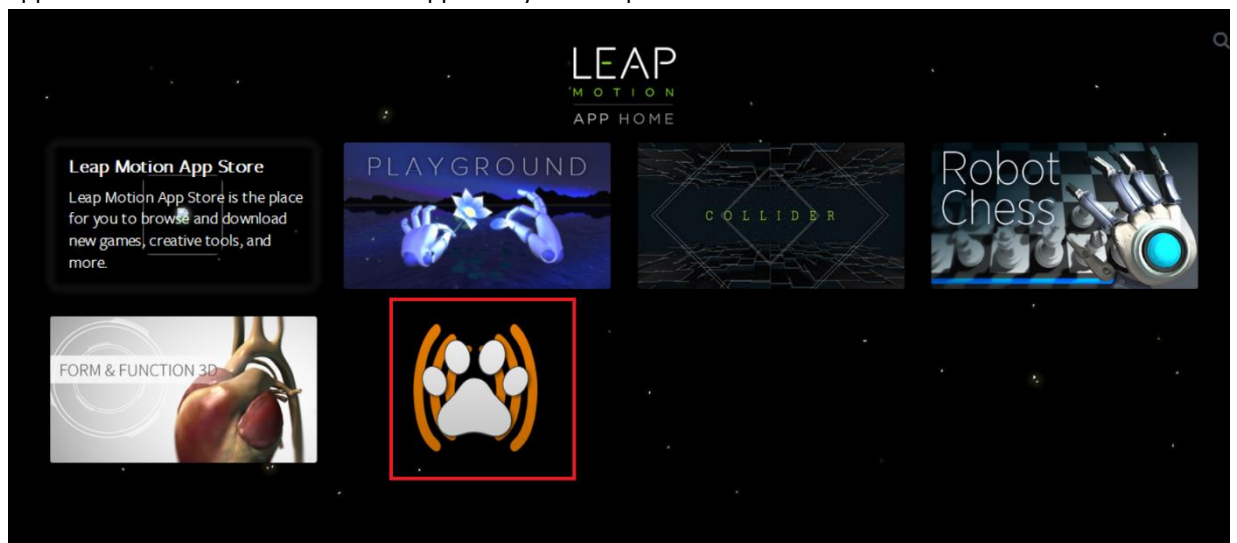

4. Download the "Scratch Offline Editor" and install for your computer (Mac Or Windows) (Select the option to create a Shortcut on the desktop):
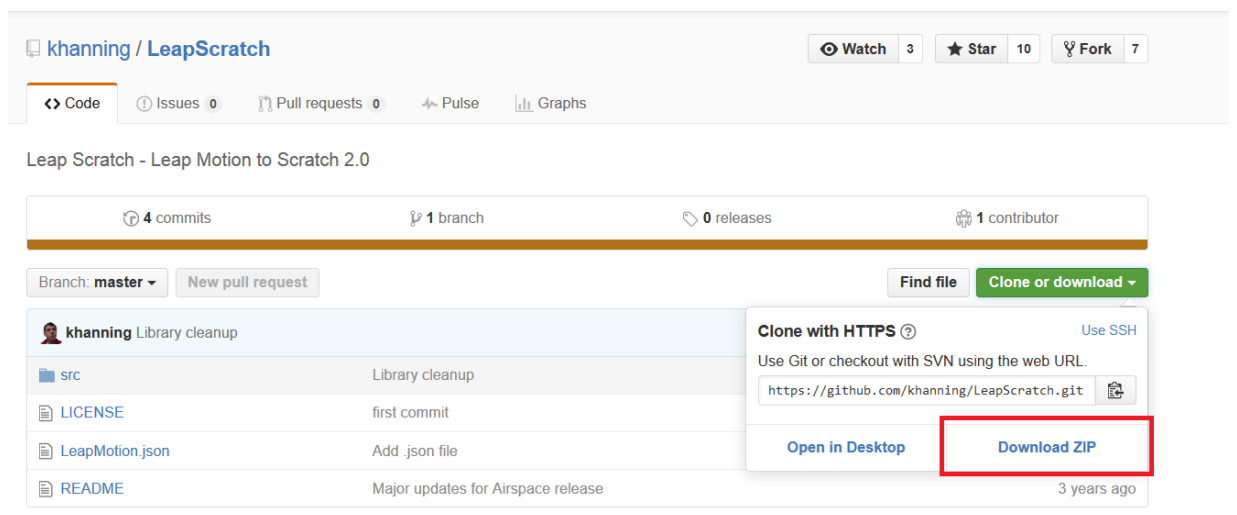

5. Go back to the Leap App Store web page and search for "Scratch":

6. You should see the "Scratch 2.0 Plug-in for Leap Motion" app. Click the "Free" button to download the app. After it has dowloaded it should appear in your "Leap Motion Home":

7. Go to https://github.com/khanning/LeapScratch and click the "Download Zip" button on the bottom right. Extract the Zip somewhere easy to remember (for example on your Desktop):

8. Download the file https://github.com/devoxx4kids/materials/raw/master/workshops/scratch/leapmotion/workshop1/D4 K-Scratch-LeapMotion.sb2 and save it somewhere easy (e.g. same folder as for bullet #7):

ONCE THE WORKSHOP STARTS

1. Plug in the Leap device that was given to you
2. Open the Leap Motion App Home
3. Open the Scratch plugin
4. Open Scratch offline editor
5. Click File -> Open -> Select the K-Scratch-LeapMotion.sb2 file which you have saved previously (Step 8)

6. The scratch plugin should be all green: