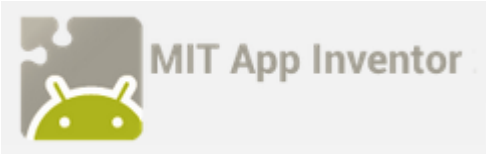
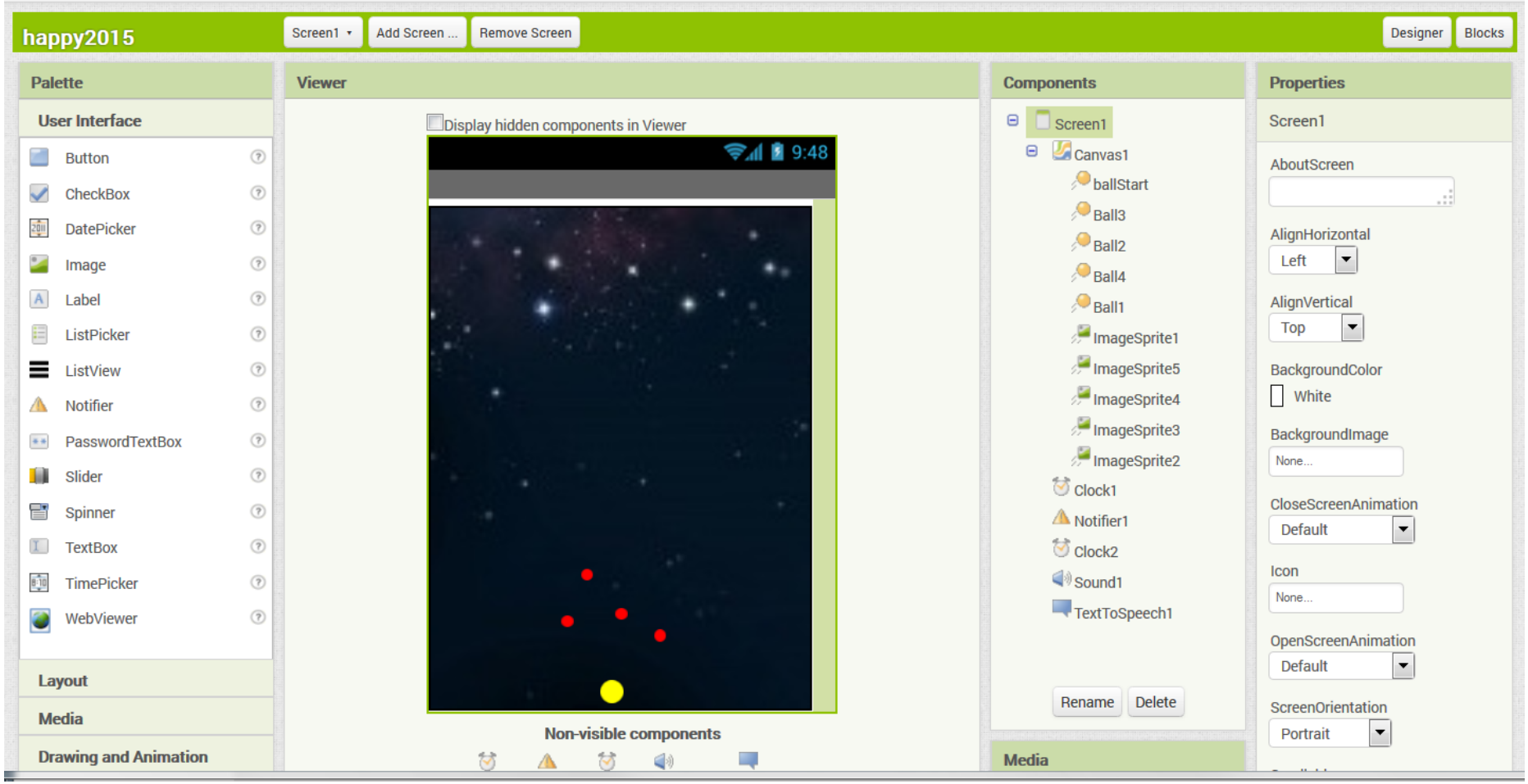
HAPPY 2015



Implementation: Ghica and David

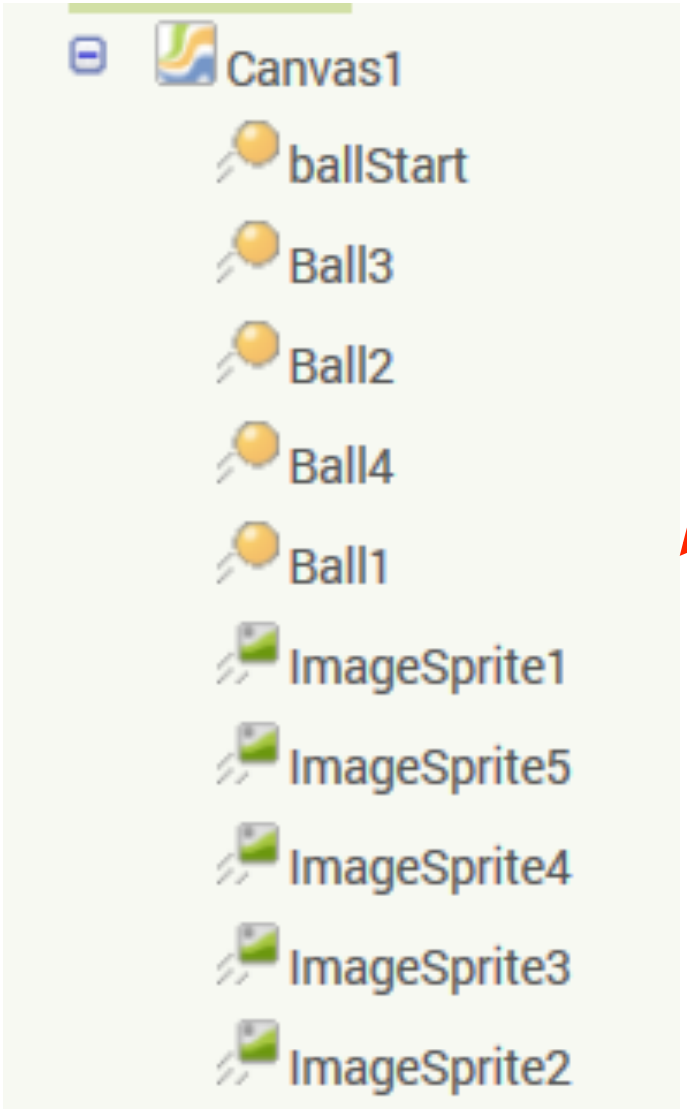
Start App Inventor 2 and import happy2015_starter.aia

->Projects->Import project (.aia) from my computer…



In this version all media are present, but almost no blocks.

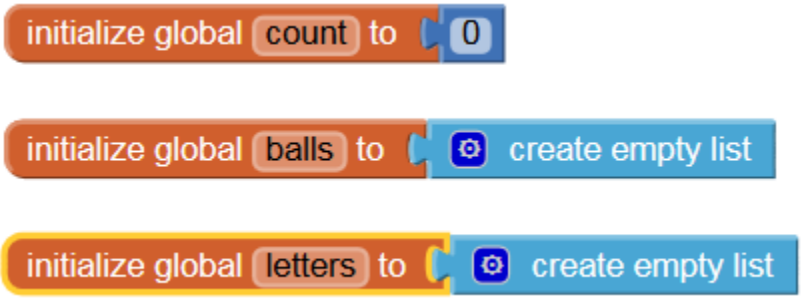
Balls and Sprites



These balls are used for the fireworks

Letters: H, A, P, P, Y

global variables, these are the only blocks present in happy2015_starter.aia

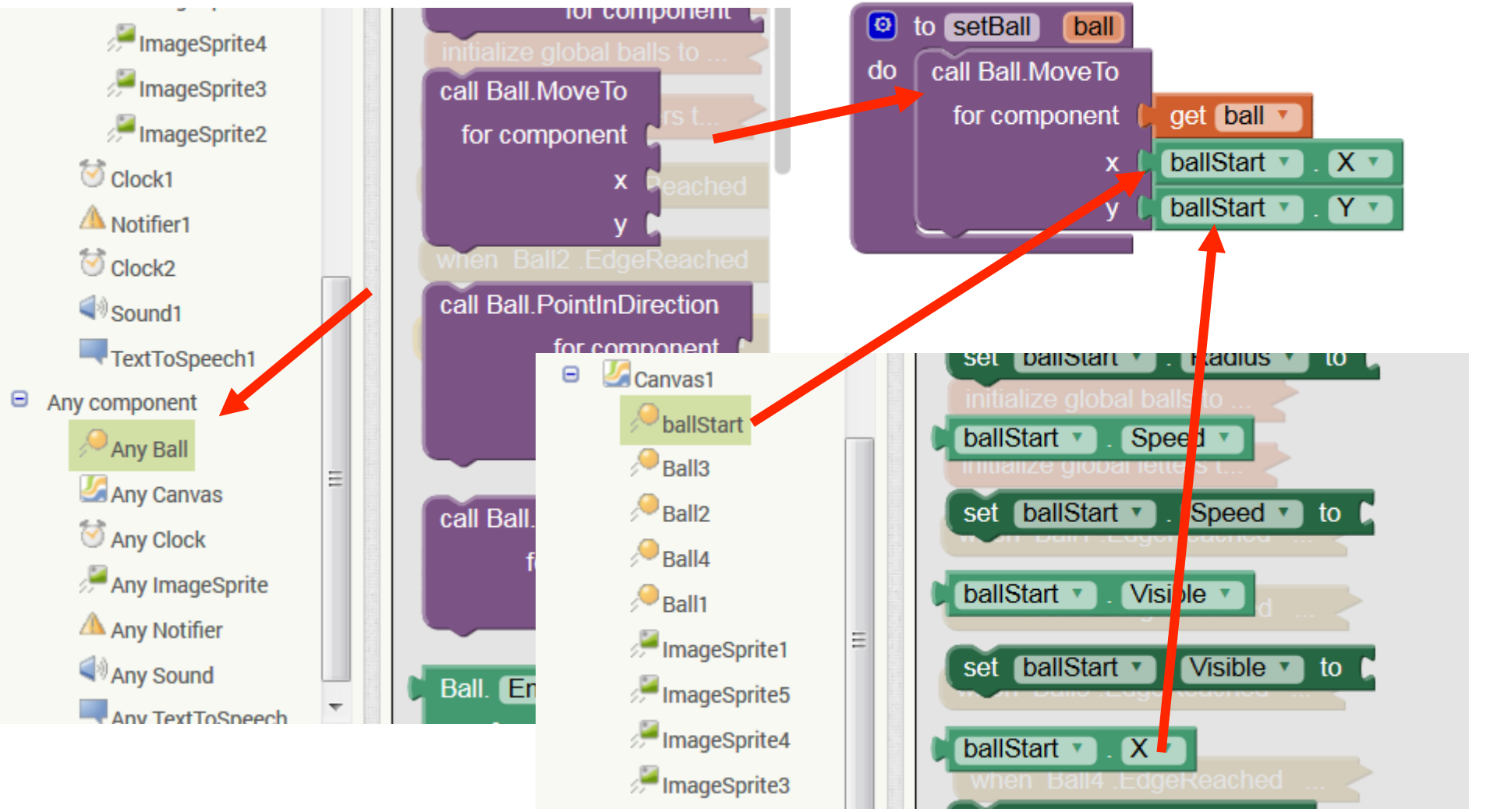


Start with saving the project as happy2015. This allows you to go to the original if needed.

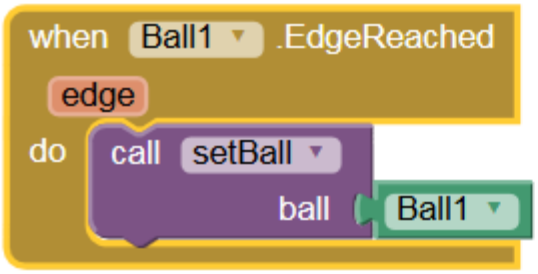
Let the balls fly - 1

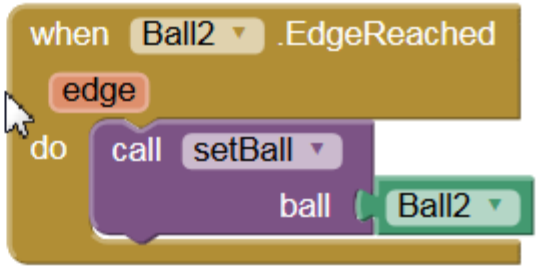
The *setBall* procedure moves a ball that it recieves as input parameter to the same position as the larger yellow ball.

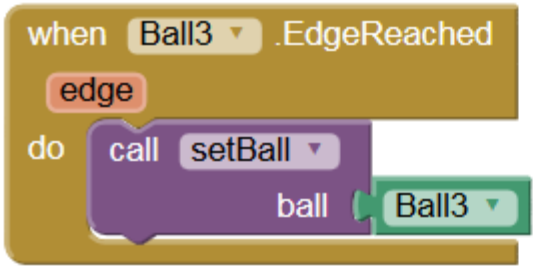
The **call Ball.MoveTo** block can be found in *the Any component -> Any Ball* section.

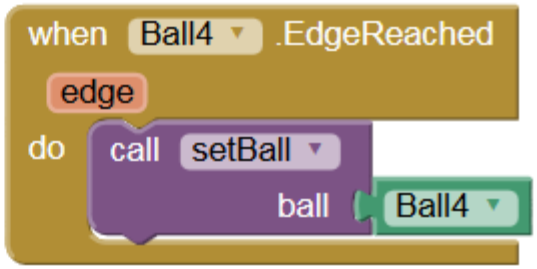


Let the balls fly - 2









Test!

When you have made these blocks and the *setBall* procedure, test your work by using the emulator or the AI Companion.

Make a checkpoint: -> Projects->Checkpoint, if something goes wrong you can go back easily by loading the checkpoint.
It is also a good idea to save an .aia file to your computer.

It does not look like fireworks yet, but the balls are flying!

Color the balls

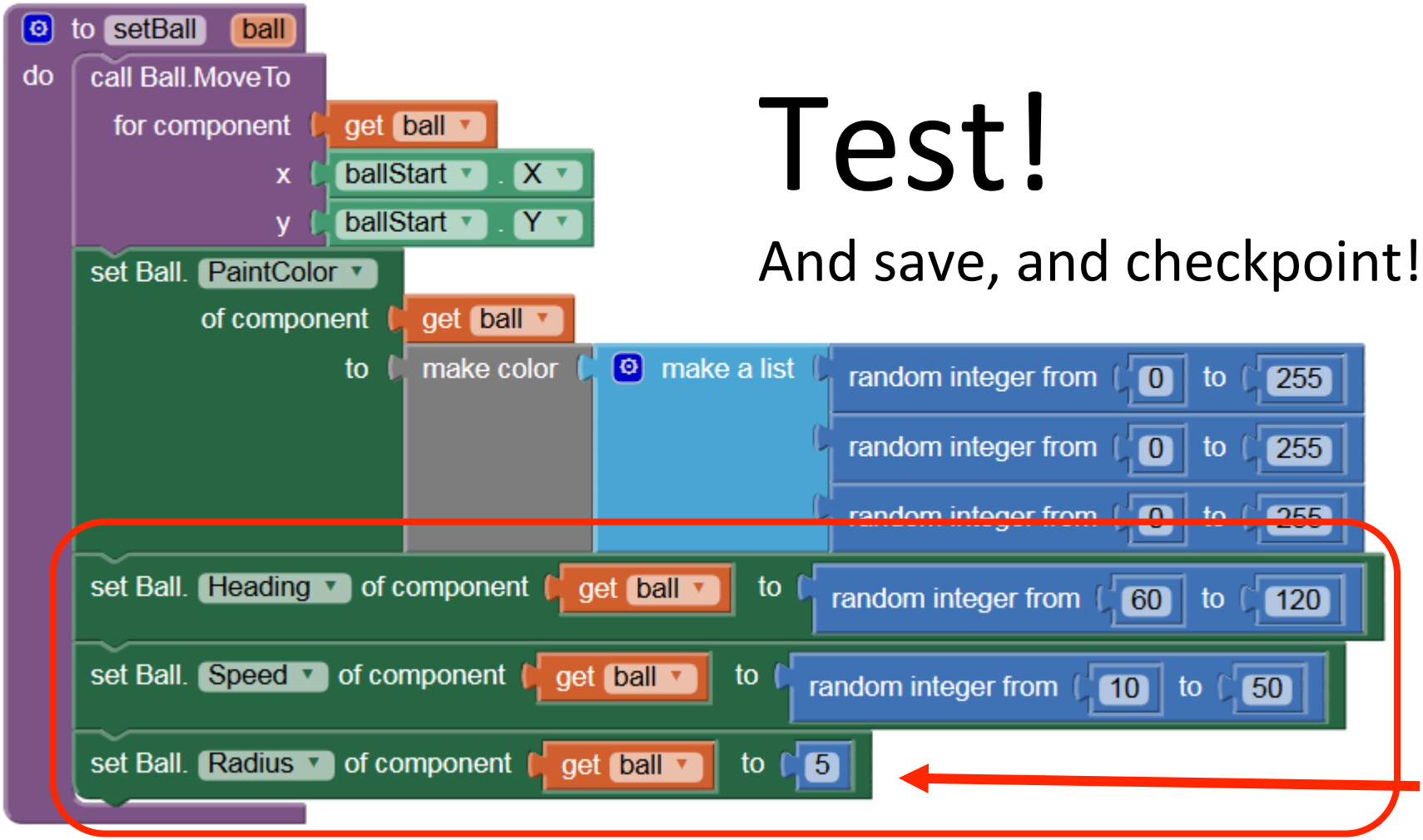
Test!

Also, save a checkpoint and export an .aia file to your computer.

The **setBall.PaintColor** block can be found in *the Any component -> Any Ball* section. The color is made by the **make color** block. Read about it here: http://appinventor.mit.edu/explore/ai2/support/blocks/colors.html#make
By using random numbers to make the colors, we will get randomly colored balls.

The input to this block is a specific ball, that was passed to the *setBall* procedure by the **when Ball.. EdgeReached** event block was fired.

Let the balls have a random speed and direction



Test!

And save, and checkpoint!

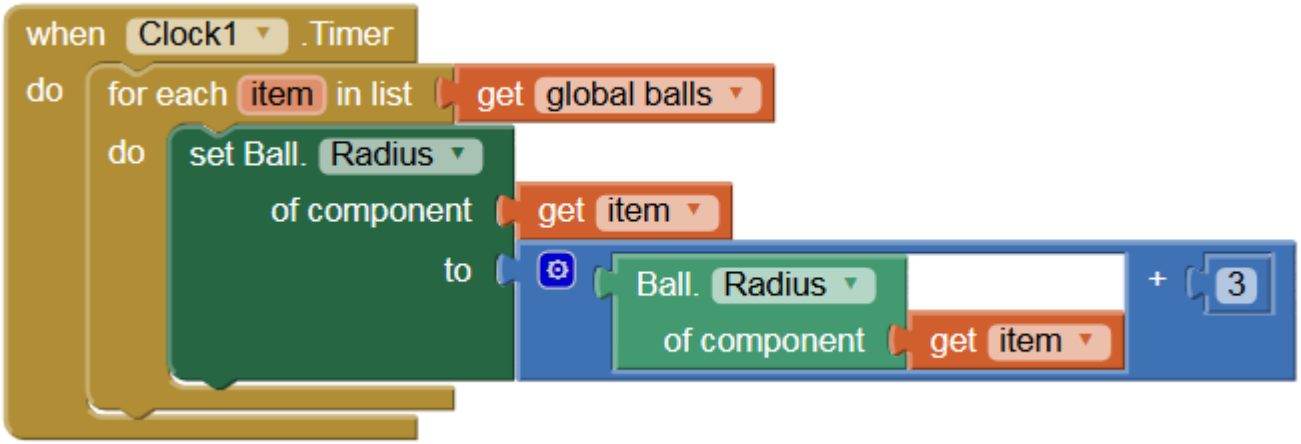
Adapt *setBall* to give a ball a random direction and speed. Find the blocks in the *any Ball* section, as we have seen before.
Note the setting of the ball radius. We will need that later.

Starting conditions and sound

When Screen1 is initialized, the *start* procedure is called. We put all start stuff in a separate procedure, because we can then restart our app by using *DoIt* (click right on **call start** and choose *DoIt*).

No fireworks without sound! (Credit: http://www.freesfx.co.uk/)
The sound plays We also create a list of the four fireworks balls

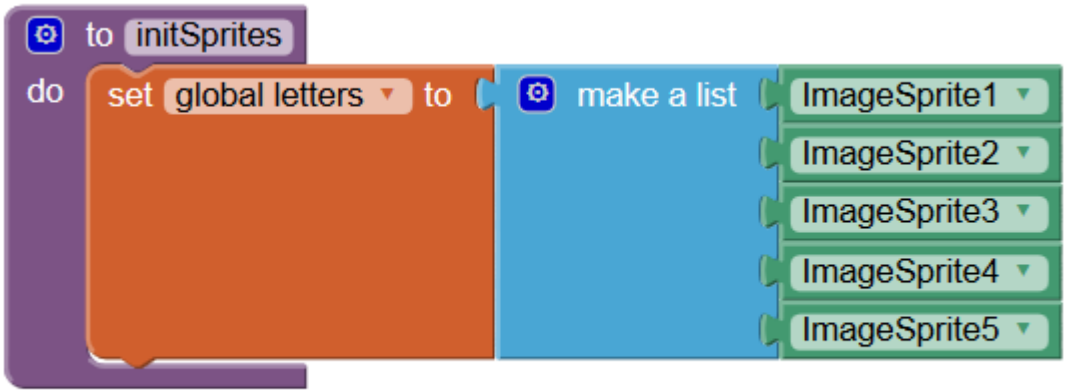
We use a timer to increase the size of the ball every time the timer fires, like in a real firework.



You see here an example of using our list of balls we made in the *start* procedure, and the use of a block from the *Any Ball* section.

Test! And Save!

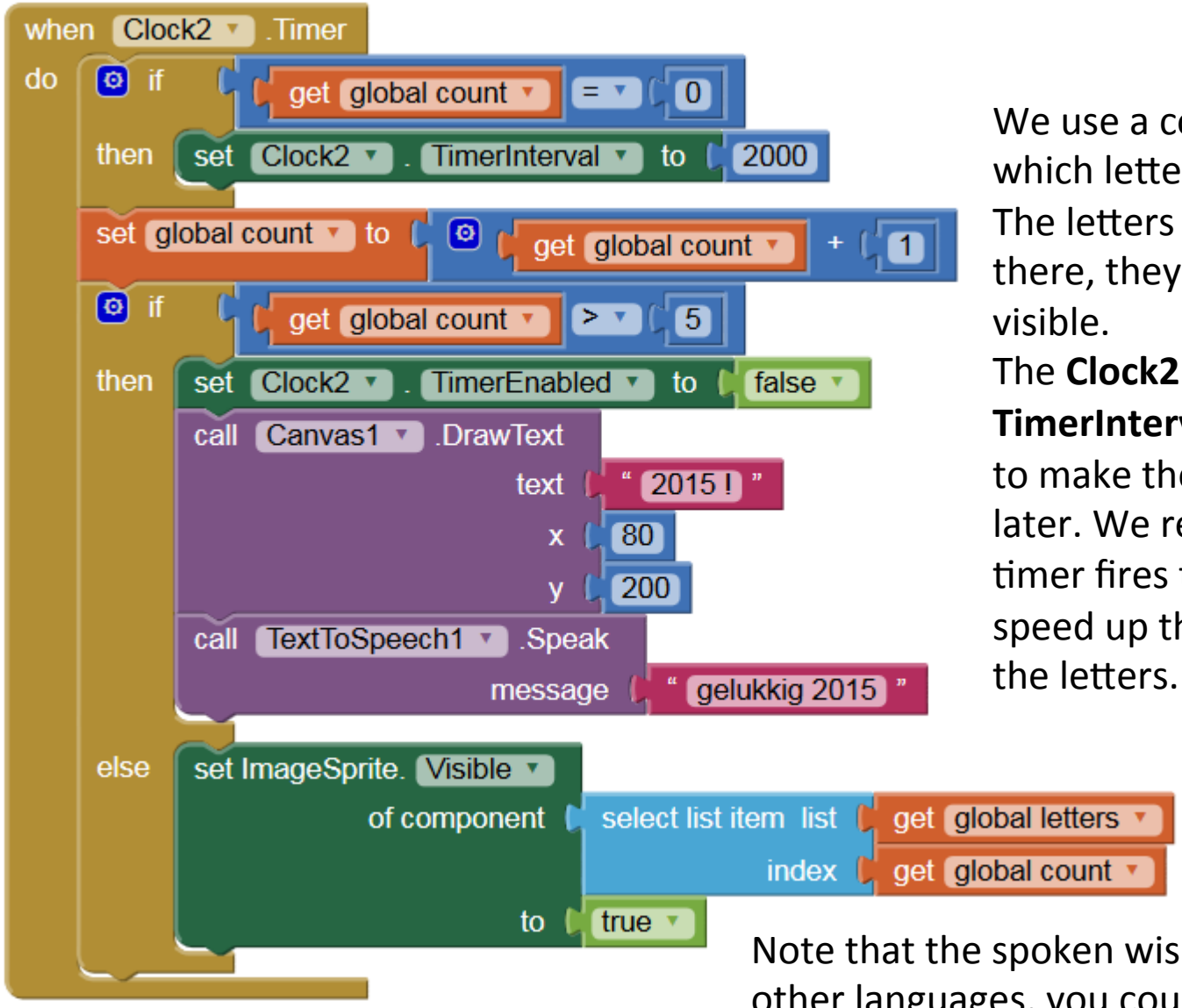
Make a list of letters and initialize them



The balls are flying like a real firework now. The next thing we do is to make the letters of the word HAPPY appear on the screen.

We did not put the making of the sprites list in the *start* routine, because, when you restart with *DoIt*, the list does not need to change. You could move the making of the balls list into *initSprites* if you wish, for the same reason.

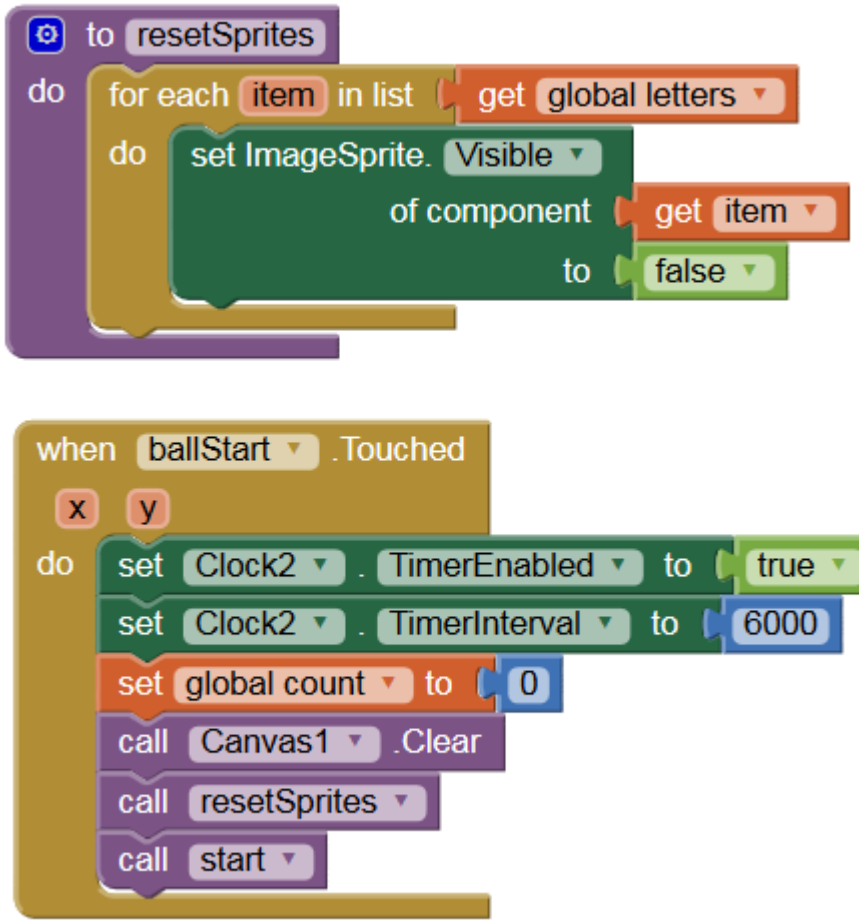
With a second clock we let the letters appear, one by one. Finally we draw some text and speak a wish.



We use a counter to know which letter should appear. The letters are already there, they are just made visible.
The **Clock2** has a large **TimerInterval** at the start, to make the letters appear later. We reset it when the timer fires the first time, to speed up the appearance of the letters.

Note that the spoken wish is in Dutch. For other languages, you could adapt the country settings in the design.

Make the yellow ball a *start* ball



We want to use the yellow ball to restart the app. We can use the **when ballStart .Touched** block for this purpose.

We have to make the letters invisible again, before the restart. We need to enable the **Clock2** component, reset the counter and clear the canvas, before *start* is called.

Test!

Export an .aia file, build an .apk, show your family and friends

Happy inventing with AI2 in 2015 !!