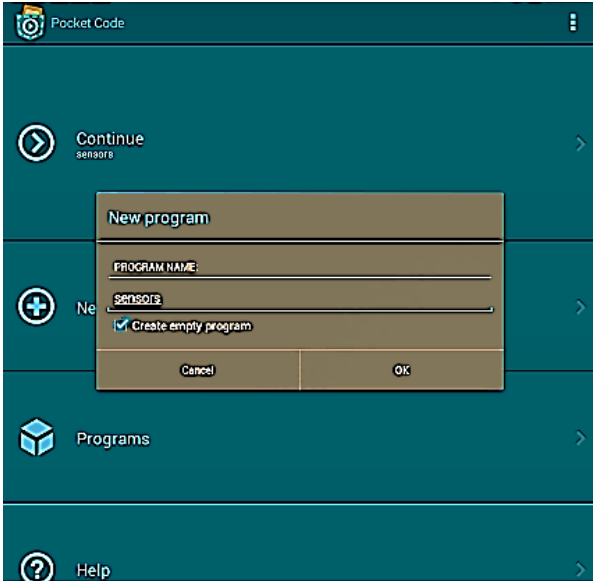


Control an object using the inclination sensors

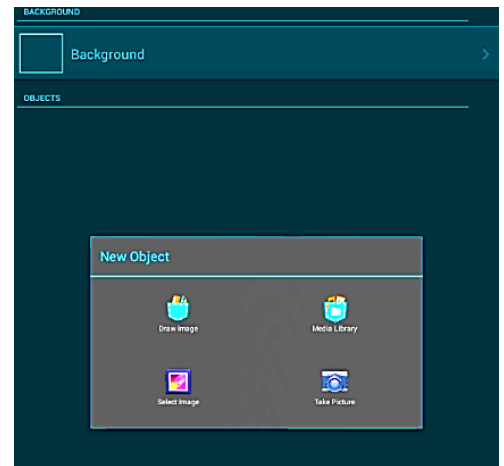


1. Start Screen

The opening menu for Pocket Code:

- **Continue:** tour currently opened program.
- **New:** to create a new program.
- **Programs:** to see all created/downloaded programs – on this device.
- **Help:** Useful tutorials from basic steps to a game in an hour.
- **Explore:** Explore the world of Pocket Code programs. Download and remix programs you like.
- **Upload:** Upload the program that is currently opened.

Create a new program – choose “New”, name your program – make sure you tick the “create empty program” box (or you will create another copy of “my first program”).  
- For this activity keep the orientation on portrait.

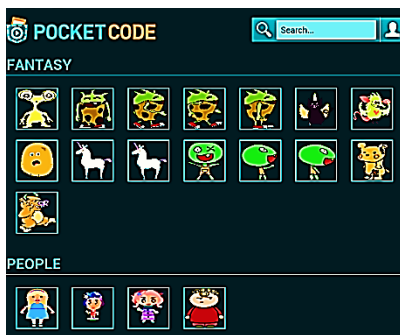


2. Object Overview

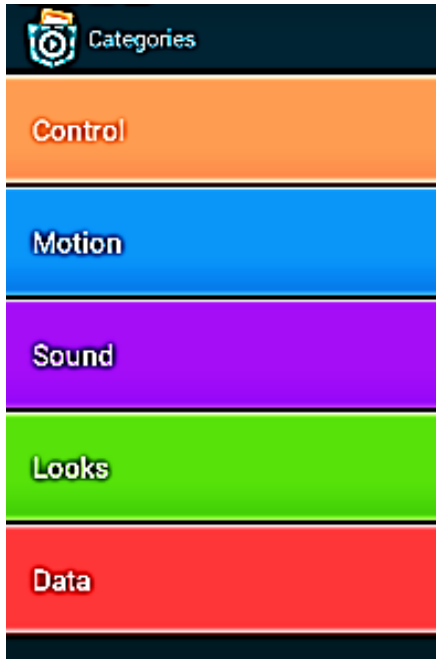
When you have named your program and tapped OK this will take you into the overview page – all it will have is an empty background icon.

Firstly, press the “+” button (bottom left) where you will find/create your new object. Choose the *Media Library*. This is a collection of downloadable items to use for Pocket Code, which is continually growing.

Tap on your chosen object – which will download immediately. After you name the object, you will then be taken to the scripts page.



## Control an object using the inclination sensors



### 3. Brick categories

You need to add script to begin to code your object. Tap "+" to add scripts.

The categories page shows the 5 different categories. Under each category you find different types of bricks with certain purposes.

**Control** – These bricks control the program flow.

**Motion** – Find bricks for moving the object.

**Sound** - Changing or adding sound to the object.

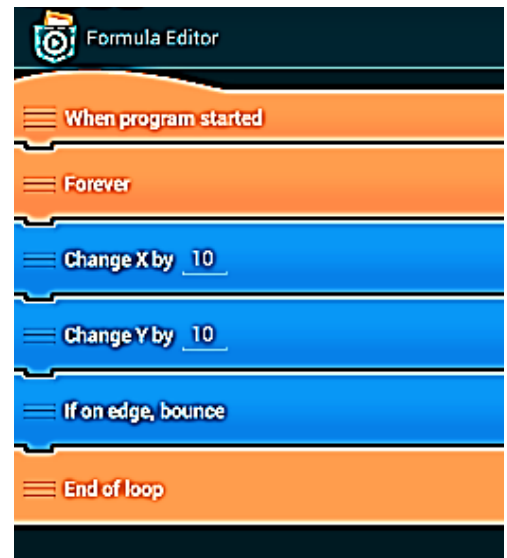
**Looks** – Change how the object looks.

**Data** - Variables and lists to save important data about our objects.

### 4. Object scripts

Insert the following bricks into the script by choosing the correct coloured category and placing them in the order shown to the right.

- **Control = When Program started**
- **Control = Forever** (This will create the "end of loop" brick on the bottom.
- **Motion = If on edge bounce**
- **Motion = Change X by 10**
- **Motion = Change Y by 10**
- **(End of Loop will automatically appear)**



If you press play at this point, you will find that your object will immediately float to the top right hand corner of the stage. Tap back twice to take you back to the script page.

### Formula Editor

If we tap on the "Change X by" value this opens the formula editor. With this we can make calculations and access the sensor data on our device.

We want to control the object through the device's sensors, so tap on the sensors button then choose "inclination\_x" for the X axis and "inclination\_y" for the Y axis.

Control an object using the inclination sensors

The image shows two screenshots from the Scratch environment. On the left is the 'Formula Editor' for the 'Change X by' block, with a dropdown menu open. On the right is the 'Sensors' palette, which lists various sensors: acceleration\_x, acceleration\_y, acceleration\_z, compass\_direction, inclination\_x, inclination\_y, loudness, is\_face\_detected, face\_size, face\_x\_position, and face\_y\_position. A blue arrow points from the Formula Editor to the Sensors palette.

Press play to see how you control the object using the inclination sensors. If you feel it's too sensitive divide the inclination by 10, if you need to make it more sensitive multiply by 10.

(e.g. `"inclination_y x 10"`)

The image shows a Scratch script for an object named 'potato'. The script starts with 'When program started', followed by a 'Forever' loop. Inside the loop, there are three blocks: 'Change X by inclination\_x', 'Change Y by inclination\_y', and 'If on edge, bounce'. The loop ends with 'End of loop'.