

## Doodle Language

The name of this language is "*Doodle*". "*Doodle*" is design to help programmers create unfocused sketches in few simple steps.

This language creates shapes, lines and texts with different sizes. We can call them objects. Shapes includes: Circle, triangle, rectangle, square, oval...etc. Each object is created in a separate layers. The number of Layers should be specified before creating any object.

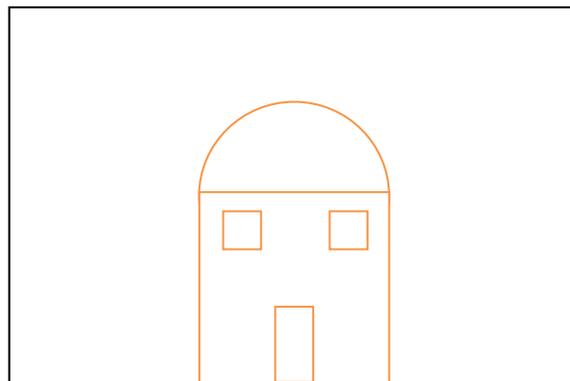
A full "*Doodle*" program consists of 2 parts: window and object. Window describes the overall view of the output window. Object describes all objects that should be created to form a sketch.

The program starts with the keyword *window* and ends with the close bracket of the object part.

### Sample Program of "doodle" language:

```
1  Window [Layers=5;  
2      Size=(150,100);  
3      Bcolor=while;  
4      Lcolor=orange; ]  
5  
6  Object[ circle(1,25,(0,0));  
7      Rectangle(2,(50,50),(0,0));  
8      Rectangle(3,(10,10), (-12,-25));  
9      Rectangle(4,(10,10), (+12,-25));  
10     Rectangle(5,10,20), (0,-40)); ]
```

### Output window:



The program consists of two parts: the first part is *window*, and the second is *object*.

**Window** between the brackets [ ] a user should describe the size, color, and number of layers of the output window.

1. Layers: number of layers of the output window. Each layer can hold exactly one object.
2. Size: size of the output window in pixels
3. Bcolor: background color
4. Lcolor: objects' outline color.

In the previous example (line1-4) layers are set to 5, the output window is 150 pixels width and 100 pixels height, the background color is set to white, and outline color of the objects is orange.

**Object** all shapes (objects) are created in this section between two brackets [ ]. Objects includes shapes(circle, triangle, rectangle..etc), lines, and texts.

in line 6 the object circle is defined as *circle(1,25,(0,0))*.

*Circle(layer#, radius, (x,y));*

First parameter stands for the layer number that the object will be created on. The second parameter is the size of the radius . the center of the circle is drawn in (0,0) the middle of the window.

Lines 7-10 creates 4 rectangle objects. Each in a separate layer, with width and height, and (x,y) coordinates)

*Rectangle(layer#,(width, height),(x,y));*