

# Draw with code

Type-in JavaScript programs for young coders

**Draw with code**  
Type-in JavaScript program for young coders

```
// Background
noStroke();
fill(188, 199, 231);
rect(0, 0, 800, 500);
fill(191, 144, 0);
rect(0, 500, 800, 600);

// Sun
fill("yellow");
circle(750, 50, 150);
stroke("yellow");
strokeWeight(6);
line(480, 60, 561, 47);
line(548, 224, 602, 172);
line(740, 304, 747, 236);

// Car
stroke("black");
strokeWeight(1);
fill(112, 173, 71);
rect(175, 340, 223, 54);
rect(188, 394, 362, 74);
fill(132, 60, 12);
circle(168, 468, 32);
circle(408, 468, 32);
```

**Draw with code**  
Type-in JavaScript program for young coders

```
noStroke();
fill("#d9e3f3");
rect(0, 0, 800, 300);
fill("#0faad");
rect(0, 300, 800, 600)

// Mast
fill("#804c0c");
rect(280, 36, 16, 321);
fill("#ff9966");
triangle(300, 36, 450, 207, 300, 264);

// Boat
fill("#7030a0");
rect(178, 357, 319, 140);
triangle(105, 357, 178, 357, 178, 497);
triangle(573, 357, 497, 497, 497, 357);

// Birds
fill("#07d331");
triangle(520, 52, 578, 52, 553, 67);
triangle(631, 71, 677, 71, 664, 85);
triangle(723, 121, 766, 121, 743, 135);
```

- 1 Open [codeguppy.com](https://codeguppy.com) code editor
- 2 Type in the program in the code editor
- 3 Run the program and observe the effect

Early Preview Edition

Great for - Hour of Code - Coding Clubs - Home Use

# Who should use this booklet?

This booklet is intended as a coding resource for parents, computer science teachers and coding club instructors. The booklet contains fun JavaScript programs for young coders.

This booklet is a very valuable resource for introducing kids to coding. No prior coding experience is necessary for kids ... or parents / educators.

# How to use this booklet?

Please make sure all kids have free accounts opened at [codeguppy.com](https://codeguppy.com) then:

- Print this booklet and share printed programs with kids. Each page contains a full program, so you can share only one page at a time with a kid.
- Ask kids to type-in the programs in the code editor from [codeguppy.com](https://codeguppy.com) and then run it with the “Run” button.
- Encourage kids to customize the program by changing colors or adding additional shapes.

# Tips for typing-in the programs

Typing-in programs from a piece of paper is a great way to teach kids about coding. Since typing-in the program requires attention to details, kids will also develop useful skills beyond coding.

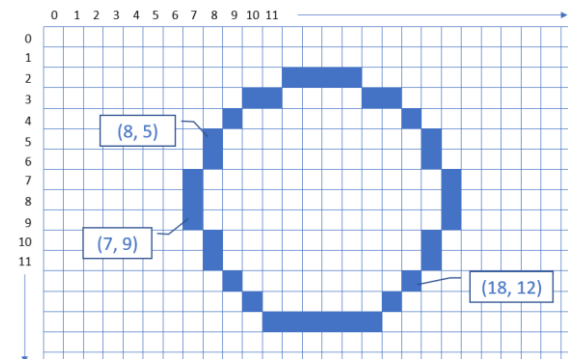
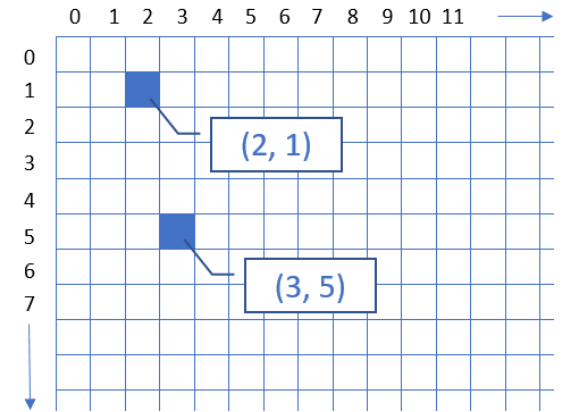
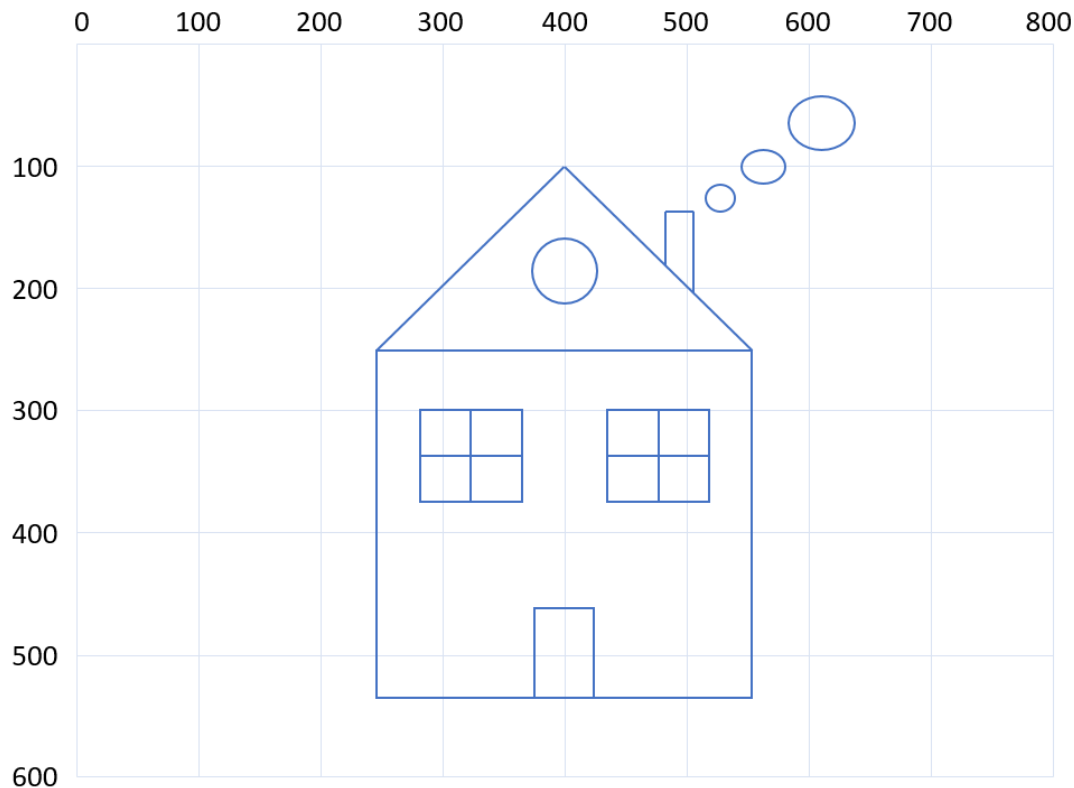
Here are a few tips to ensure programs are type-in correctly:

- Please ask kids to type-in each program very carefully exactly as it appears on the paper. Tell them to not skip any letter, number or punctuation sign!
- Programs are case sensitive. Please ask kids to type-in all the commands using the same case as it appears on the paper.
- To avoid accumulating errors, you can instruct kids to run the program from time to time, but only after the current line of code is completed. Running a program is as easy as pressing the big “Run” button in the top-right of the code editor.
- If computer will output errors, please check together with the kids the typed-in program against the program on the paper.

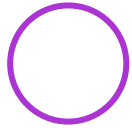
# Understanding programs

All programs included in this booklet are drawing on a canvas. The canvas is made up of many small dots that you can turn black or white or even color them through code. These dots are called pixels.

In a sense the canvas is like a graph paper (grid paper), with each grid paper square being a tiny pixel on the canvas. The canvas used by our programs is 800 pixels wide by 600 pixels tall.



# Graphical commands



**circle(x, y, radius)**

circle(400, 300, 100)  
circle(400, 300, 50)



**ellipse(x, y, width, height)**

ellipse(400, 300, 200, 200)  
ellipse(400, 300, 100, 50)



**line(x1, y1, x2, y2)**

line(100, 100, 700, 100)  
line(50, 550, 750, 550)



**rect(x, y, width, height)**

rect(400, 300, 300, 200)  
rect(350, 350, 300, 200)



**point(x, y)**

point(0, 0)  
point(400, 300)



**triangle(x1, y1, x2, y2, x3, y3)**

triangle(400, 200, 300, 450, 500, 450)

## Set the color for drawing

noStroke()  
stroke(color)  
strokeWeight(weight)

## Set the color for filling

background(color)  
fill(color)  
noFill()

## Specifying color

- #RRGGBB (red, green, blue components)  
- Predefined color

## Popular colors

- IndianRed, LightCoral, Salmon, DarkSalmon, LightSalmon, Crimson, Red, FireBrick, DarkRed
- Pink, LightPink, HotPink, DeepPink, MediumVioletRed, PaleVioletRed
- LightSalmon, Coral, Tomato, OrangeRed, DarkOrange, Orange
- Gold, Yellow, LightYellow, LemonChiffon, LightGoldenrodYellow, PapayaWhip, Moccasin, PeachPuff, PaleGoldenrod, Khaki, DarkKhaki
- Lavender, Thistle, Plum, Violet, Orchid, Fuchsia, Magenta, MediumOrchid, MediumPurple, RebeccaPurple, BlueViolet, DarkViolet, DarkOrchid, DarkMagenta, Purple, Indigo, Slate Blue, DarkSlateBlue, MediumSlateBlue
- GreenYellow, Chartreuse, LawnGreen, Lime, LimeGreen, PaleGreen, LightGreen, MediumSpringGreen, SpringGreen, MediumSeaGreen, SeaGreen, ForestGreen, Green, DarkGreen, YellowGreen, OliveDrab, Olive, DarkOliveGreen, MediumAquamarine, DarkSeaGreen, LightSeaGreen, DarkCyan, Teal
- Aqua, Cyan, LightCyan, PaleTurquoise, Aquamarine, Turquoise, MediumTurquoise, DarkTurquoise, CadetBlue, SteelBlue, LightSteelBlue, PowderBlue, LightBlue, SkyBlue, LightSkyBlue, DeepSkyBlue, DodgerBlue, CornflowerBlue, MediumSlateBlue, RoyalBlue, Blue, MediumBlue, DarkBlue, Navy, MidnightBlue
- Cornsilk, BlanchedAlmond, Bisque, NavajoWhite, Wheat, BurlyWood, Tan, RosyBrown, SandyBrown, Goldenrod, DarkGoldenrod, Peru, Chocolate, SaddleBrown, Sienna, Brown, Maroon
- White, Snow, HoneyDew, MintCream, Azure, AliceBlue, GhostWhite, WhiteSmoke, SeaShell, Beige, Old Lace, FloralWhite, Ivory, AntiqueWhite, Linen, LavenderBlush, MistyRose
- Gainsboro, LightGray, Silver, DarkGray, Gray, DimGray, LightSlateGray, SlateGray, DarkSlateGray, Black

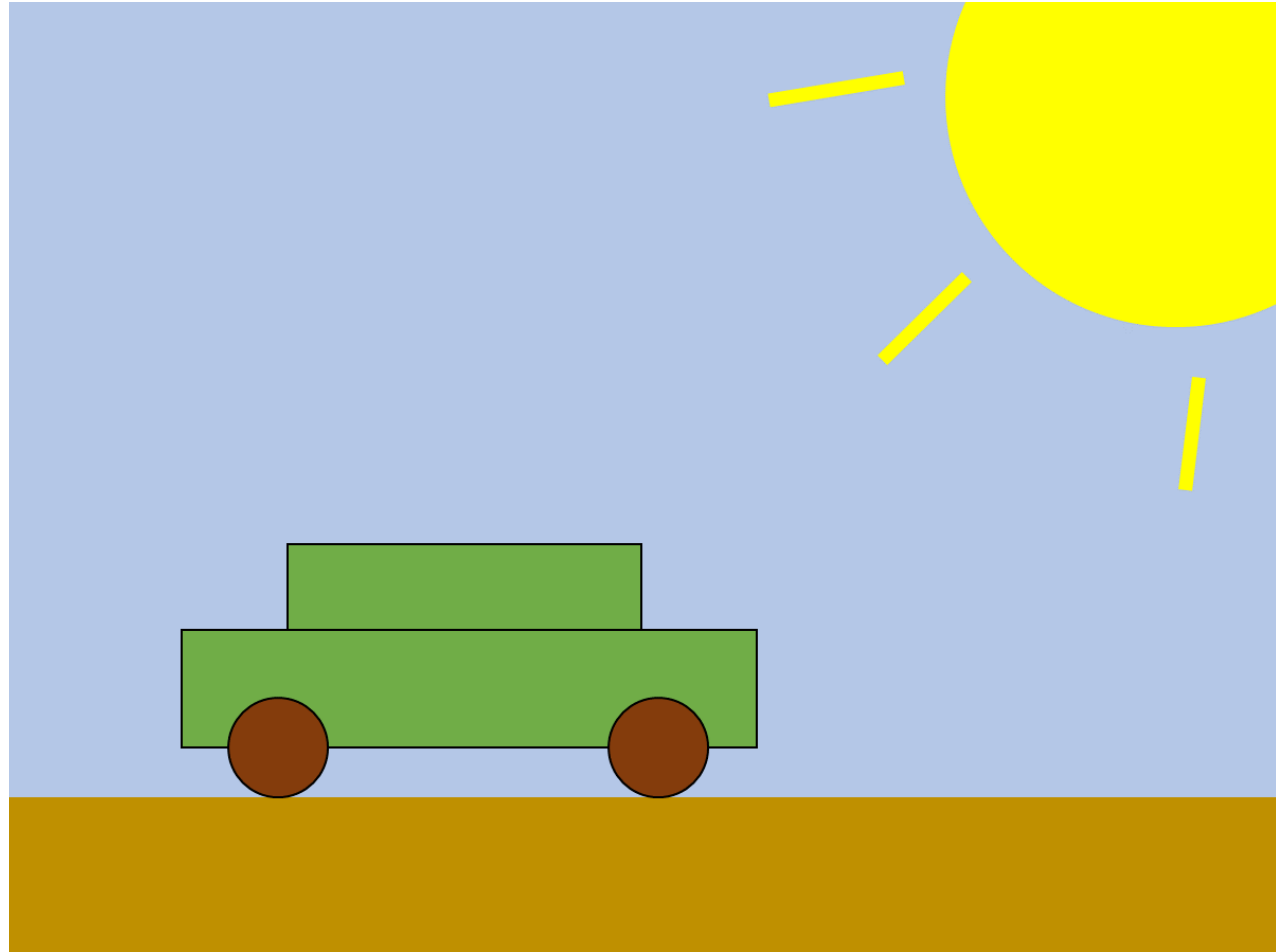
# Car

## Type-in JavaScript Program

```
// Background
noStroke();
fill(180, 199, 231);
rect(0, 0, 800, 500);
fill(191, 144, 0);
rect(0, 500, 800, 600);

// Sun
fill("yellow");
circle(750, 50, 150);
stroke("yellow");
strokeWeight(6);
line(480, 60, 561, 47);
line(548, 224, 602, 172);
line(740, 304, 747, 236);

// Car
stroke("black");
strokeWeight(1);
fill(112, 173, 71);
rect(175, 340, 223, 54);
rect(108, 394, 362, 74);
fill(132,60,12);
circle(168, 468, 32);
circle(408, 468, 32);
```



1

Sign-in at [codeguppy.com](https://codeguppy.com)  
and click "Code Now" button

2

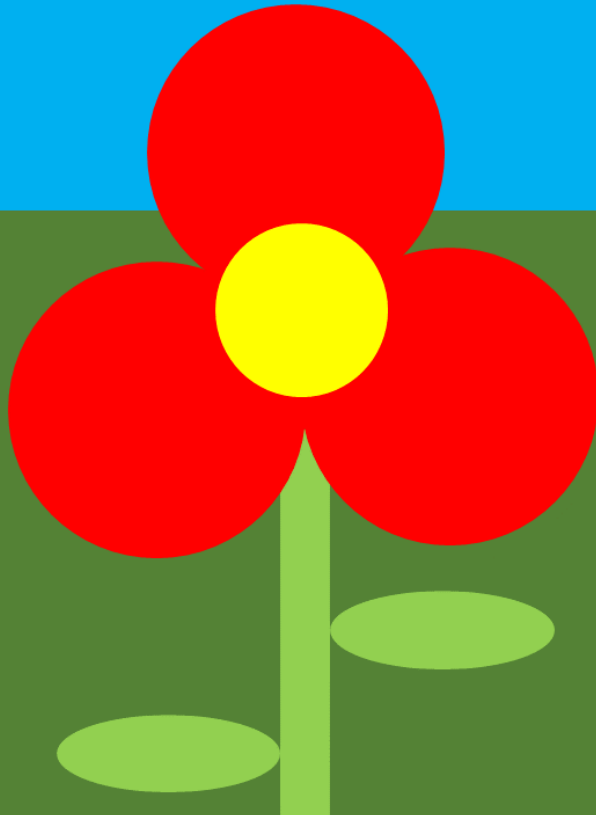
Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Flower

Type-in JavaScript Program



```
// Background
noStroke();
fill(0, 176, 240);
rect(0, 0, 800, 200);
fill(84, 130, 53);
rect(0, 200, 800, 600);

// Stem
fill(146, 208, 80);
rect(277, 313, 30, 237);
ellipse(215, 514, 124, 46);
ellipse(374, 438, 134, 46 );

// Flower
fill("red");
circle(290, 160, 87);
circle(209, 314, 87);
circle(377, 307, 87);
fill("yellow");
circle(290, 260, 46);
```

1

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2

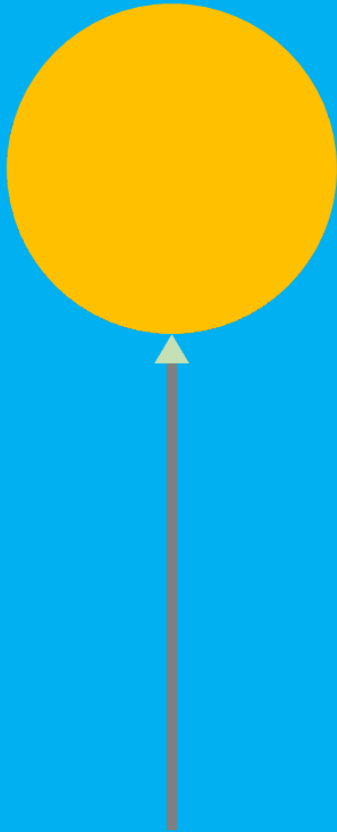
Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Balloon

Type-in JavaScript Program



```
background("#00b0f0");  
  
// String  
stroke("#7f7f7f");  
strokeWeight(3);  
line(263, 280, 263, 548);  
  
// Balloon  
noStroke();  
fill("#ffc000");  
triangle(255, 289,  
         263, 272,  
         271, 289);  
circle(263, 172, 100);
```

1

Sign-in at [codeguppy.com](https://codeguppy.com)  
and click "Code Now" button

2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!



# Snowman

## Type-in JavaScript Program

```
background("#8faadc");

// Right hand
stroke("#843c0c");
strokeWeight(10);
line(604, 359, 495, 291);
line(604, 359, 607, 378);
line(604, 359, 627, 367);
line(604, 359, 627, 355);

// Body
stroke("#335693");
strokeWeight(1);
fill("white");
circle(400, 445, 126);
circle(400, 285, 99);
circle(400, 151, 68);

// Eyes
fill("black");
noStroke();
circle(366, 124, 10);
circle(428, 124, 10);
```

```
// Mouth
circle(362, 179, 6);
circle(379, 197, 6);
circle(403, 201, 6);
circle(428, 199, 6);

// Buttons
circle(407, 267, 10);
circle(407, 320, 10);
circle(407, 433, 10);
circle(407, 502, 10);

// Nose and hat
fill("#ffc000");
triangle(397, 161, 401, 176, 483, 146);
fill("#c55a11");
triangle(321, 125, 353, 39, 434, 73);

// Left hand
stroke("#843c0c");
strokeWeight(10);
line(225, 168, 323, 265);
line(225, 168, 196, 171);
line(225, 168, 201, 157);
line(225, 168, 216, 135);
```



1

Sign-in at [codeguppy.com](https://codeguppy.com)  
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2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# House

## Type-in JavaScript Program



```
// Background
noStroke();
fill("#00b0f0");
rect(0, 0, 800, 400);
fill("#548235");
rect(0, 400, 800, 600);

fill("#ffc740");
rect(109, 254, 325, 274);

// Left window
stroke("#c55a11");
strokeWeight(3);
fill("#dae3f3");
square(147, 302, 56);
line(175, 302, 175, 358);
line(147, 330, 203, 330);

// Right window
square(347, 302, 56);
line(375, 302, 375, 358);
line(347, 330, 403, 330);
```

```
// Door
strokeWeight(1);
fill("#ed7d31");
rect(229, 417, 90, 110);
fill("#bfbfbf");
circle(305, 471, 8);

// Horn
noStroke();
fill("#843c0c");
rect(174, 117, 24, 80);

// Roof
fill("#ed7d31");
triangle(109, 254, 272, 75, 434, 254);

// Sun
fill("yellow");
circle(750, 50, 150);
stroke("yellow");
strokeWeight(6);
line(480, 60, 561, 47);
line(548, 224, 602, 172);
line(740, 304, 747, 236);
```

1

Sign-in at [codeguppy.com](https://codeguppy.com)  
and click "Code Now" button

2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# House 2

## Type-in JavaScript Program



```
// Background
noStroke();
fill("#8faadc");
rect(0, 0, 800, 300);
fill("#548235");
rect(0, 300, 800, 600);

// Tree
fill("#843c0c");
rect(104, 240, 28, 190);
fill("#548235");
ellipse(119, 139, 172, 229);
```

```
// House
fill("#ffc000");
rect(272, 260, 380, 227);

// Roof
fill("#843c0c");
triangle(252, 260, 460, 110, 670, 260);

// Left window
stroke("#c55a11");
strokeWeight(3);
fill("#dae3f3");
square(295, 287, 96);
line(343, 287, 343, 383);
line(295, 335, 391, 335);

// Right window
square(535, 287, 96);
line(583, 287, 583, 383);
line(535, 335, 631, 335);
```

```
// Door
fill("#c55a11");
rect(415, 330, 95, 155);

// Sun
fill("#ffc000");
stroke("#ffc000");
circle(700, 100, 32);
line(631, 100, 658, 100);
line(659, 43, 673, 59);
line(729, 61, 743, 42);
line(750, 106, 770, 106);
line(729, 141, 742, 155);
line(674, 139, 660, 155);
```

1

Sign-in at [codeguppy.com](https://codeguppy.com)  
and click "Code Now" button

2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Square Tree

Type-in JavaScript Program



```
noStroke();

// Background
fill("#aac6e7");
rect(0, 0, 800, 400);
fill("#c5e0b4");
rect(0, 400, 800, 600);

// Trunk
fill("#843c0c");
rect(212, 330, 120, 190);

// Leaves
fill("#548235");
rect(255, 158, 300, 220);
fill("#00b050");
rect(57, 197, 230, 150);
fill("#92d050");
rect(130, 55, 230, 190);
```

1

Sign-in at [codeguppy.com](https://codeguppy.com)  
and click "Code Now" button

2

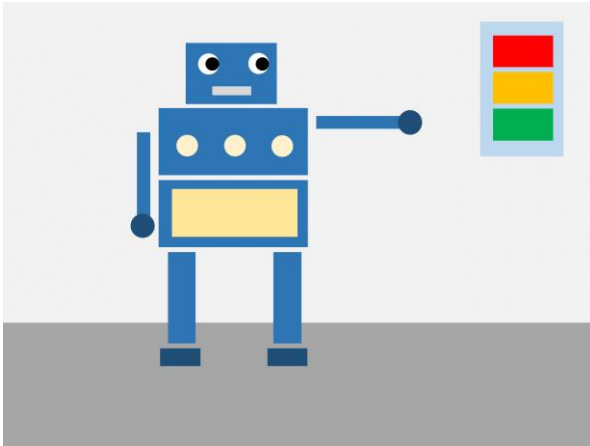
Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Robot

## Type-in JavaScript Program



```
noStroke();

// Background
fill("#efefef");
rect(0, 0, 800, 430);
fill("#a7a7a7");
rect(0, 430, 800, 600);

// Head and body
fill("#2e75b6");
rect(249, 54, 122, 83);
rect(211, 142, 200, 90);
rect(211, 240, 200, 90);
```

```
// Legs
rect(224, 338, 36, 124);
rect(368, 338, 36, 124);

// Arms
rect(182, 176, 16, 118);
rect(426, 155, 118, 16);

// Feet and hands
fill("#1f4e79");
rect(214, 468, 55, 25);
rect(359, 468, 55, 25);
circle(190, 300, 15);
circle(553, 162, 15);

// Eyes
fill("white");
circle(278, 83, 14);
circle(347, 83, 14);
fill("black");
circle(283, 83, 9);
circle(352, 83, 9);
```

```
// Mouth
fill("#d8d8d8");
rect(285, 113, 53, 13);

// Decorations
fill("#fff2cc");
circle(250, 195, 12);
circle(315, 195, 12);
circle(380, 195, 12);
fill("#ffe699");
rect(230, 250, 165, 65);

// Lights
fill("#bdd7ee");
rect(638, 28, 104, 175);
fill("red");
rect(650, 45, 80, 42);
fill("#ffc000");
rect(650, 95, 80, 42);
fill("#00b050");
rect(650, 145, 80, 42);
```

1

Sign-in at [codeguppy.com](https://codeguppy.com)  
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2

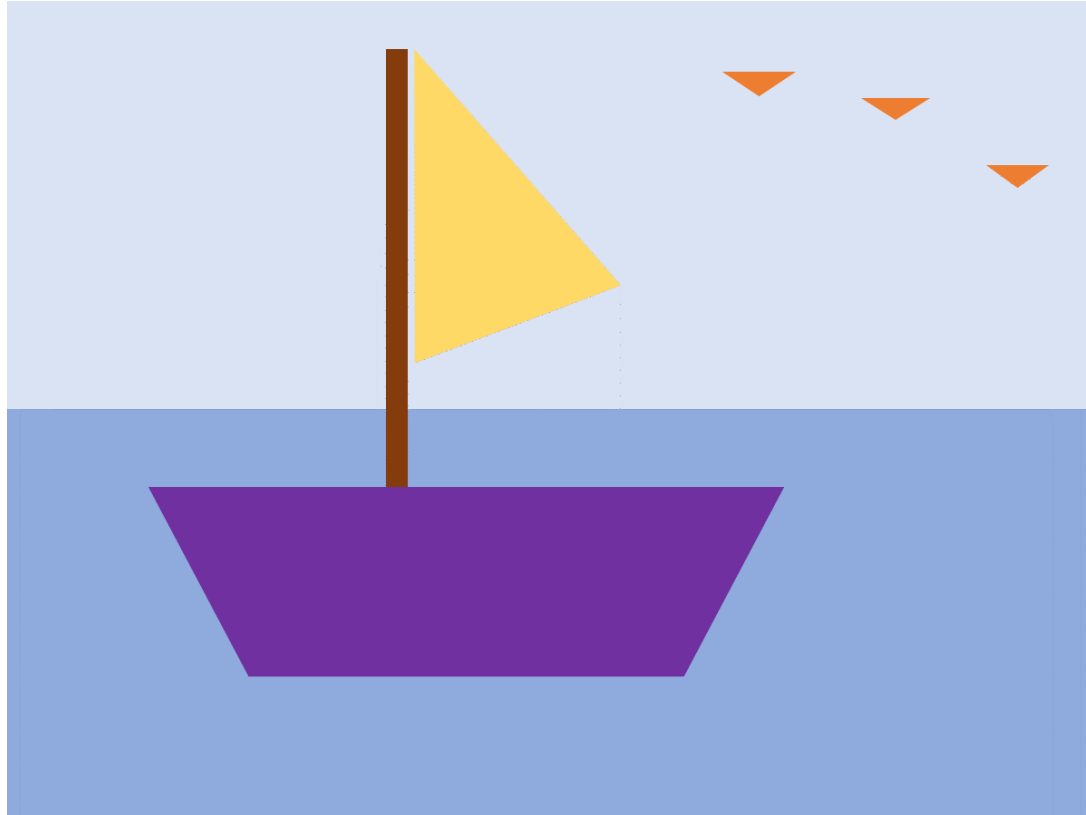
Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Boat

## Type-in JavaScript Program



```
noStroke();

// Background
fill("#dae3f3");
rect(0, 0, 800, 300);
fill("#8faadc");
rect(0, 300, 800, 600)

// Mast
fill("#843c0c");
rect(280, 36, 16, 321);
fill("#ffd966");
triangle(300, 36, 450, 207, 300, 264);

// Boat
fill("#7030a0");
rect(178, 357, 319, 140);
triangle(105, 357, 178, 357, 178, 497);
triangle(573, 357, 497, 497, 497, 357);

// Birds
fill("#ed7d31");
triangle(529, 52, 578, 52, 553, 67);
triangle(631, 71, 677, 71, 654, 85);
triangle(722, 121, 766, 121, 743, 135);
```

1

Sign-in at [codeguppy.com](https://codeguppy.com)  
and click "Code Now" button

2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Smiley

## Type-in JavaScript Program



```
noStroke();  
background("#548235");  
  
fill("#ffc000");  
circle(400, 300, 200);  
  
fill("black");  
circle(314, 206, 25);  
circle(504, 206, 25);  
  
fill("#c00000");  
arc(400, 340, 238, 196, 0, 180);
```

1

Sign-in at [codeguppy.com](https://codeguppy.com)  
and click "Code Now" button

2

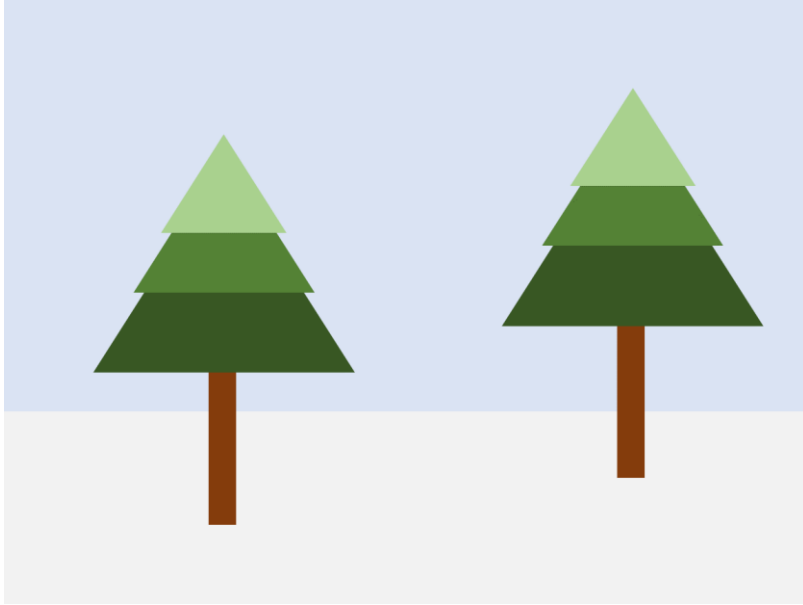
Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Pine Trees

## Type-in JavaScript Program



```
noStroke();

// Background
fill("#dae3f3");
rect(0, 0, 800, 400);
fill("#f2f2f2");
rect(0, 400, 800, 200);

// First tree
fill("#843c0c");
rect(205, 368, 26, 151);
fill("#385723");
triangle(220, 165, 90, 370, 350, 370);
fill("#538234");
triangle(220, 149, 130, 290, 309, 290);
fill("#a9d18e");
triangle(220, 134, 158, 230, 281, 230);

// Second tree
fill("#843c0c");
rect(205+405, 368-45, 26, 151);
fill("#385723");
triangle(220+405, 165-45, 90+405, 370-45, 350+405, 370-45);
fill("#538234");
triangle(220+405, 149-45, 130+405, 290-45, 309+405, 290-45);
fill("#a9d18e");
triangle(220+405, 134-45, 158+405, 230-45, 281+405, 230-45);
```

1

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and click "Code Now" button

2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!



# Mushroom

Type-in JavaScript Program



```
noStroke();

// Background
fill("#a9d18e");
rect(0, 0, 800, 400);
fill("#843c0c");
rect(0, 400, 800, 200);

// Mushroom
fill("#ffc000");
rect(328, 314, 72, 212);
fill("#c00000");
arc(365, 314, 386, 396, 180, 360);
fill("white");
circle(245, 271, 20);
circle(285, 195, 18);
circle(341, 167, 12);
circle(423, 171, 14);
circle(491, 233, 14);
circle(335, 249, 13);
circle(393, 220, 22);
circle(443, 279, 23);
```

1

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2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Pizza

## Type-in JavaScript Program

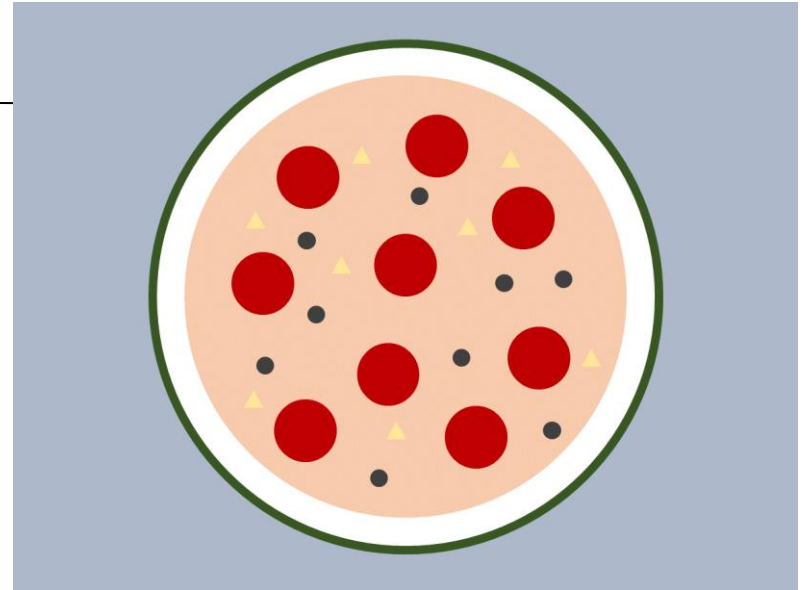
```
noStroke();
background("#adb9ca");

// Plate and pizza
fill("#385723");
circle(400, 300, 260);
fill("white");
circle(400, 300, 254);
fill("#f7c9ab");
circle(400, 300, 225);

// Pepperoni
fill("#c00000");
circle(300, 180, 30);
circle(433, 150, 30);
circle(521, 221, 30);
circle(536, 365, 30);
circle(469, 445, 30);
circle(296, 439, 30);
circle(256, 289, 30);
circle(399, 268, 30);
circle(385, 381, 30);
```

```
// Olives
fill("#404040");
circle(257, 370, 9);
circle(309, 319, 9);
circle(300, 243, 9);
circle(415, 196, 9);
circle(501, 286, 9);
circle(563, 282, 9);
circle(457, 362, 9);
circle(373, 485, 9);
circle(257, 370, 9);
circle(550, 435, 9);

// Pineapple
fill("#ffe699");
triangle(249, 212, 239, 229, 259, 229);
triangle(357, 144, 347, 161, 367, 161);
triangle(508, 150, 498, 167, 518, 167);
triangle(337, 258, 327, 275, 347, 275);
triangle(465, 219, 455, 236, 475, 236);
triangle(391, 427, 381, 444, 401, 444);
triangle(590, 353, 580, 370, 600, 370);
triangle(438, 481, 428, 498, 448, 498);
triangle(246, 395, 236, 412, 256, 412);
```



1

Sign-in at [codeguppy.com](https://codeguppy.com)  
and click "Code Now" button

2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Mouse

## Type-in JavaScript Program



```
background("#a6cf87");
noStroke();

// Head and ears
fill("#c55a11");
triangle(242, 192, 556, 192, 400, 500);
circle(272, 171, 85);
circle(542, 171, 85);
fill("#242424");
triangle(347, 395, 453, 395, 400, 500);

// Eyes
fill("white");
circle(344, 260, 25);
circle(455, 260, 25);
fill("black");
circle(355, 268, 8);
circle(448, 268, 8);

// Whiskers
stroke("#242424");
strokeWeight(3);
line(282, 403, 345, 427);
line(287, 485, 345, 462);
line(450, 427, 502, 416);
line(442, 455, 504, 486);
```

1

Sign-in at [codeguppy.com](https://codeguppy.com)  
and click "Code Now" button

2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Train

## Type-in JavaScript Program

```
// Background
noStroke();
fill("#8faadc");
rect(0, 0, 800, 340);
fill("#a9d18e");
rect(0, 340, 800, 260);

// Main part
fill("#c55a11");
triangle(127, 428, 252, 428, 252, 300);
rect(502, 215, 175, 213);
rect(283, 258, 14, 42);
fill("#ffc000");
rect(252, 300, 250, 128);

// Windows
fill("#f8cbad");
rect(523, 236, 55, 58);
rect(584, 236, 74, 58);
rect(523, 300, 135, 96);
```



```
// Wheels
fill("#262626");
circle(260, 454, 38);
circle(598, 454, 38);
fill("#d9d9d9");
circle(260, 454, 19);
circle(598, 454, 19);
fill("#262626");
rect(249, 443, 344, 10);
```

```
// Road and smoke
fill("#3b3838");
rect(0, 492, 800, 28);
fill("#f2f2f2");
ellipse(316, 209, 29, 20);
ellipse(377, 166, 46, 32);
ellipse(442, 114, 68, 47);
```

1

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Type-in the above program in the Code Editor

3

Press "Run" and enjoy!

# City

## Type-in JavaScript Program

```
// Background
noStroke();
fill("#b4c7e7");
rect(0, 0, 800, 400);
fill("#548235");
rect(0, 400, 800, 100);
fill("#a5a5a5");
rect(0, 500, 800, 100);
```

```
// Building 1
stroke(1);
fill("#e254d4");
rect(67, 272, 197, 228);
fill("#21e7cf");
rect(84, 292, 48, 36);
rect(143, 292, 48, 36);
rect(201, 292, 48, 36);
rect(84, 347, 48, 36);
rect(143, 347, 48, 36);
rect(201, 347, 48, 36);
fill("#934bc9");
rect(132, 425, 27, 75);
rect(159, 425, 27, 75);
rect(186, 425, 27, 75);
```



```
// Building 2
fill("#bf9000");
rect(264, 187, 106, 313);
fill("#21e7cf");
circle(320, 248, 23);
square(292, 287, 13);
square(314, 287, 13);
square(337, 287, 13);
square(292, 314, 13);
square(314, 314, 13);
square(337, 314, 13);
square(292, 339, 13);
square(314, 339, 13);
square(337, 339, 13);
fill("#c55a11");
arc(320, 464, 45, 35, 180, 360);
rect(297, 464, 45, 36);
```

```
// Building 3
fill("#934bc9");
rect(370, 322, 80, 178);
fill("#21e7cf");
rect(379, 333, 63, 12);
rect(379, 354, 63, 12);
rect(379, 376, 63, 12);
fill("#4472c4");
rect(388, 465, 46, 35);
```

```
// Building 4
fill("#d44316");
rect(450, 142, 150, 358);
fill("#21e7cf");
rect(474, 171, 24, 160);
rect(521, 171, 24, 160);
rect(562, 171, 24, 160);
fill("#4472c4");
rect(495, 434, 37, 66);
rect(532, 434, 37, 66);
```

```
// Tree
noStroke();
fill("#843c0c");
rect(705, 370, 10, 50);
fill("#385723");
triangle(709, 291, 679, 370, 738, 370);
```

1

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and enjoy!

# Cat

## Type-in JavaScript Program



```
// Background
noStroke();
fill("#4472c4");
rect(0, 0, 800, 500);
fill("#7030a0");
rect(0, 500, 800, 1000);

// Ears and body
fill("#f4b183");
triangle(318, 99, 318, 175, 359, 121);
triangle(483, 99, 483, 184, 435, 121);
circle(397, 415, 120);

// Head and feet
fill("#f8cbad");
triangle(397, 69, 138, 410, 655, 410);
circle(332, 525, 25);
circle(468, 525, 25);

// Eyes
fill("#44546a");
ellipse(339, 215, 29, 40);
ellipse(461, 215, 29, 40);

// Nose
fill("#7f7f7f");
triangle(360, 270, 440, 270, 402, 339);
noFill();
stroke("#7f7f7f");
arc(447, 338, 90, 68, 45, 180);
arc(357, 338, 90, 68, 0, 135);
```

1

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2

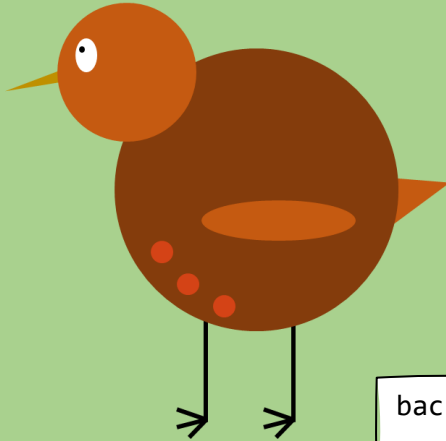
Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Bird

## Type-in JavaScript Program



```
background("#a9d18e");

// Legs
strokeWeight(4);
stroke("Black");
line(380, 407, 380, 500);
line(380, 500, 355, 493);
line(380, 500, 354, 508);
line(380, 500, 365, 518);
line(460, 412, 460, 500);
line(460, 500, 434, 492);
line(460, 500, 434, 509);
line(460, 500, 445, 517);
```

```
// Tail and body
noStroke();
fill("#c55a11");
triangle(554, 280, 603, 284, 551, 323);
fill("#843c0c");
circle(426, 291, 130);
fill("#c55a11");
ellipse(447, 318, 142, 39);
fill("#d44316");
circle(339, 348, 10);
circle(364, 377, 10);
circle(397, 398, 10);

// Head
fill("#bf9000");
triangle(196, 199, 245, 180, 246, 190);
fill("#c55a11");
circle(308, 181, 64);
fill("White");
ellipse(270, 167, 20, 31);
fill("Black");
circle(267, 162, 4);
```

1

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Type-in the above program  
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Press "Run"  
and enjoy!

## Type-in JavaScript Program



```
// Background
noStroke();
background("#bdd7ee");
fill("#548235");
rect(0, 500, 800, 100);
```

```
// Sun
fill("#ffd966");
circle(77, 67, 46);
triangle(67, 130, 82, 129, 81, 185);
triangle(127, 109, 136, 97, 176, 136);
triangle(145, 53, 143, 37, 200, 35);
```

```
// House
fill("#ffc000");
rect(150, 397, 554, 103);
fill("#d44316");
rect(150, 252, 554, 145);
fill("#ed7d31");
triangle(134, 252, 428, 153, 720, 252);
fill("#934bc9");
triangle(506, 252, 612, 130, 720, 252);

// Porch
fill("#00b0f0");
rect(357, 397, 15, 113);
rect(481, 397, 15, 113);
rect(405, 438, 48, 62);
fill("#0070c0");
triangle(335, 397, 427, 316, 520, 397);

// Windows
fill("#c5e0b4");
rect(200, 423, 87, 50);
rect(581, 423, 87, 50);
fill("#f8cbad");
rect(218, 282, 50, 86);
rect(601, 282, 50, 86);
rect(403, 277, 47, 27);
fill("#e254d4");
circle(614, 206, 23);
```

1

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Type-in the above program  
in the Code Editor

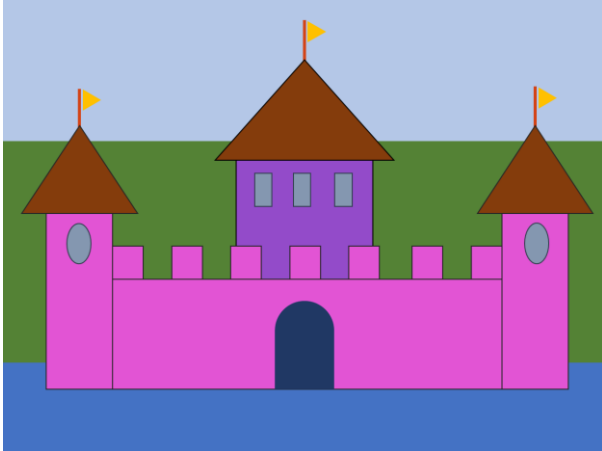
3

Press "Run"  
and enjoy!



# Castle

## Type-in JavaScript Program



```
// Background
noStroke();
fill("#b4c7e7");
rect(0, 0, 800, 187);
fill("#548235");
rect(0, 187, 800, 296);
fill("#4472c4");
rect(0, 483, 800, 117);

// Castle walls
stroke("black");
fill("#e254d4");
rect(57, 284, 88, 233);
rect(145, 371, 517, 146);
rect(662, 284, 88, 233);
fill("#934bc9");
rect(310, 214, 182, 157);
fill("#e254d4");
rect(145, 328, 39, 43);
rect(224, 328, 39, 43);
rect(303, 328, 39, 43);
rect(381, 328, 39, 43);
rect(459, 328, 39, 43);
rect(543, 328, 39, 43);
rect(623, 328, 39, 43);
```

```
// Windows
fill("#8497b0");
ellipse(101, 325, 32, 55);
ellipse(709, 325, 32, 55);
rect(335, 230, 22, 43);
rect(386, 230, 22, 43);
rect(440, 230, 22, 43);

// Roof
fill("#843c0c");
triangle(25, 284, 101, 167, 179, 284);
triangle(281, 215, 401, 81, 519, 215);
triangle(630, 285, 706, 167, 783, 285);

// Flags
strokeWeight(4);
stroke("#d44316");
line(101, 119, 101, 167);
line(401, 27, 401, 81);
line(706, 115, 706, 167);
noStroke();
fill("#ffc000");
triangle(107, 146, 107, 119, 130, 132);
triangle(405, 56, 405, 27, 427, 43);
triangle(711, 142, 711, 115, 743, 131);

// Door
fill("#203864");
rect(362, 433, 78, 84);
arc(401, 433, 78, 65, 180, 360);
```

1

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in the Code Editor

3

Press "Run"  
and enjoy!

# Bear

## Type-in JavaScript Program



```
background("#b4c7e7");

// Head and ears
noStroke();
fill("#843c0c");
circle(281, 137, 56);
circle(527, 137, 56);
fill("#c55a11");
circle(406, 300, 162);

// Eyes
fill("white");
circle(346, 224, 31);
circle(485, 224, 31);
fill("black");
circle(358, 240, 11);
circle(473, 240, 11);

// Nose and mouth
fill("#843c0c");
circle(406, 395, 68);
fill("#bcb9b6");
rect(406, 369, 3, 94);
fill("black");
circle(406, 349, 22);

// Garment
fill("#548235");
triangle(257, 509, 257, 420, 403, 465);
triangle(561, 508, 561, 422, 413, 465);
fill("#21e7cf");
circle(407, 465, 8);
```

1

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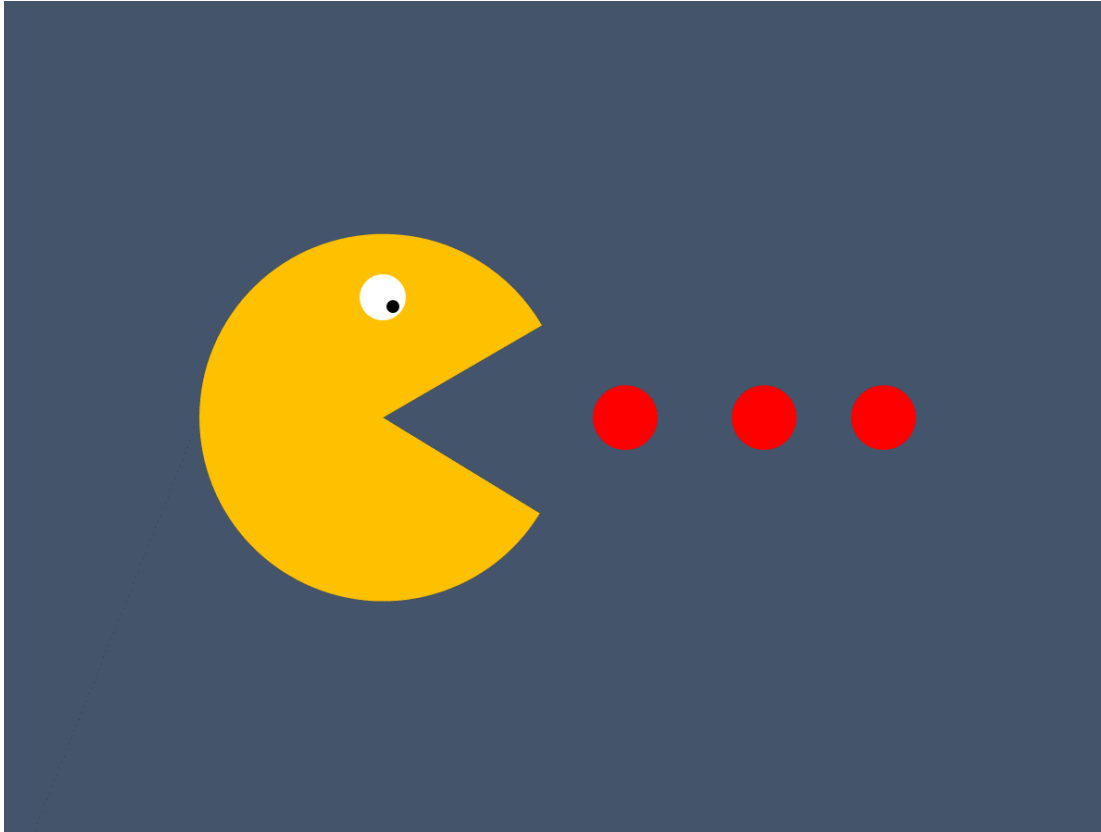
Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Pac Man

## Type-in JavaScript Program



```
background("#44546a");  
noStroke();  
  
// Pacman  
fill("#ffc000");  
arc(270, 300, 264, 264, 30, 330);  
  
// Eye  
fill("white");  
circle(272, 213, 16);  
fill("black");  
circle(280, 219, 5);  
  
// Food  
fill("red");  
circle(448, 300, 24);  
circle(548, 300, 24);  
circle(648, 300, 24);
```

1

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2

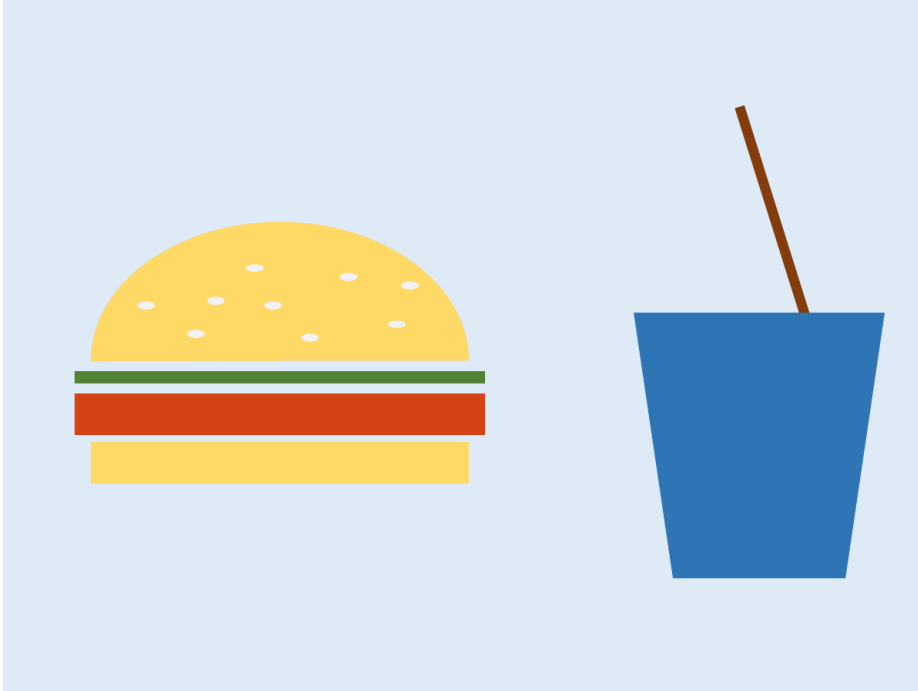
Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Fast Food

## Type-in JavaScript Program



```
background("#deebf7");  
noStroke();
```

```
// Bun  
fill("#ffd966");  
arc(245, 311, 327, 238, 180, 360);  
rect(80, 380, 325, 33);
```

```
// Salad and meat  
fill("#548235");  
rect(63, 320, 355, 9);  
fill("#d44316");  
rect(63, 340, 355, 35);
```

```
// Seeds  
fill("white");  
ellipse(124, 263, 15, 7);  
ellipse(167, 288, 15, 7);  
ellipse(185, 259, 15, 7);  
ellipse(218, 231, 15, 7);  
ellipse(234, 263, 15, 7);  
ellipse(266, 291, 15, 7);  
ellipse(299, 238, 15, 7);  
ellipse(340, 279, 15, 7);  
ellipse(353, 245, 15, 7);  
  
// Drink  
strokeWeight(4);  
stroke("#843c0c");  
line(638, 93, 695, 274);  
noStroke();  
fill("#2e75b6");  
rect(571, 269, 148, 230);  
triangle(538, 269, 571, 269, 571, 499);  
triangle(719, 269, 719, 499, 752, 269);
```

1

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2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Dog

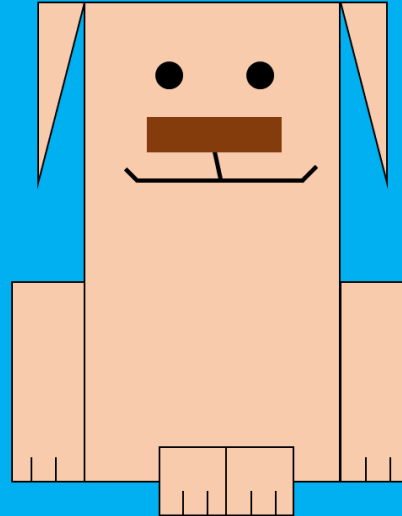
## Type-in JavaScript Program

```
background("#00b0f0");

// Head, body and ears
fill("#f8cbad");
rect(315, 95, 200, 380);
triangle(279, 95, 315, 95, 279, 240);
triangle(515, 95, 551, 95, 551, 240);

// Back legs
rect(257, 315, 58, 160);
line(274, 454, 274, 475);
line(293, 454, 293, 475);
rect(515, 315, 58, 160);
line(538, 454, 538, 475);
line(557, 454, 557, 475);

// Front legs
rect(375, 445, 52, 55);
line(393, 481, 393, 499);
line(412, 481, 412, 499);
rect(375 + 52, 445, 52, 55);
line(393 + 52, 481, 393 + 52, 499);
line(412 + 52, 481, 412 + 52, 499);
```



```
// Mouth, nose, eyes
strokeWeight(3);
line(347, 226, 356, 235);
line(356, 235, 487, 235);
line(487, 235, 498, 224);
line(423, 235, 417, 211);
noStroke();
fill("#843c0c");
rect(364, 185, 106, 27);
fill("black");
circle(382, 152, 11);
circle(454, 152, 11);
```

1

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2

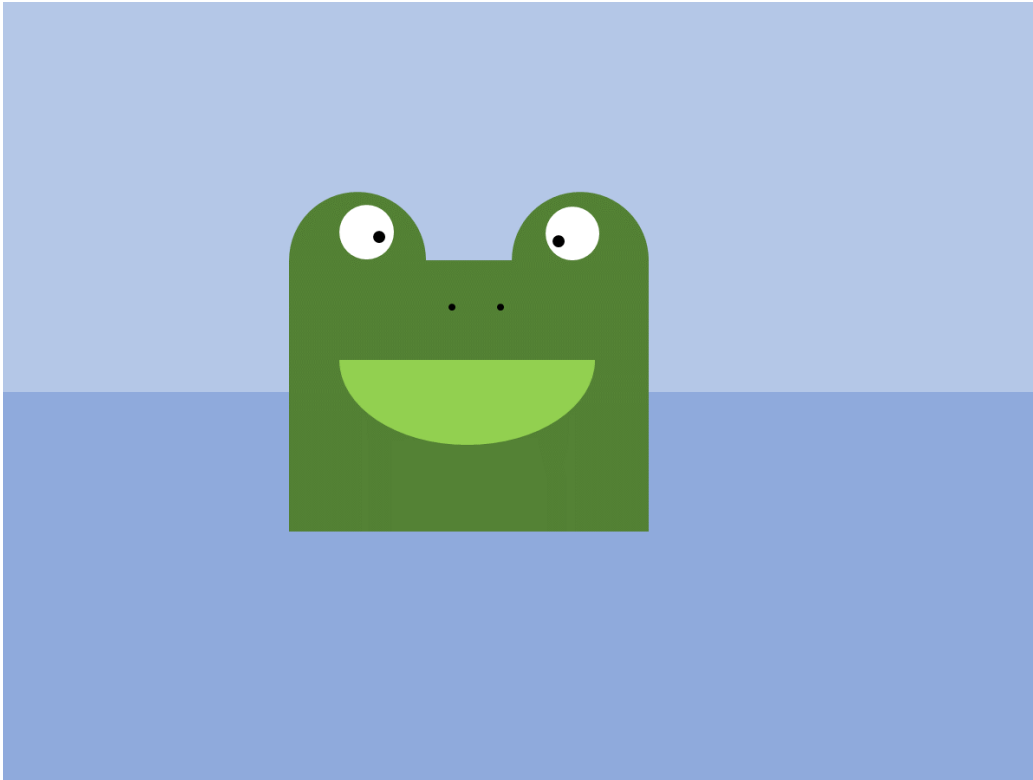
Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Frog

## Type-in JavaScript Program



```
// Background
noStroke();
fill("#b4c7e7");
rect(0, 0, 800, 300);
fill("#8faadc");
rect(0, 300, 800, 600);

// Body and eyes
fill("#548235");
rect(220, 200, 276, 206);
arc(274, 200, 108, 108, 180, 360);
arc(442, 200, 108, 108, 180, 360);
fill("white");
circle(279, 176, 21);
circle(437, 176, 21);
fill("black");
circle(289, 180, 6);
circle(428, 183, 6);

// Nose and mouth
circle(345, 233, 3);
circle(382, 233, 3);
fill("#92d050");
arc(358, 274, 197, 134, 0, 180);
```

1

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2

Type-in the above program in the Code Editor

3

Press "Run" and enjoy!

# House 3

## Type-in JavaScript Program



```
// Background and sun  
noStroke();  
fill("#b4c7e7");  
rect(0, 0, 800, 460);  
fill("#a9d18e");  
rect(0, 460, 800, 140);  
fill("#ffd966");  
circle(98, 82, 48);
```

```
// Walls  
stroke("black");  
fill("#ffe699");  
rect(153, 309, 195, 232);  
rect(348, 309, 355, 232);
```

```
// Door and windows  
fill("#c55a11");  
rect(219, 464, 51, 77);  
fill("#9dc3e6");  
square(175, 348, 48);  
square(270, 348, 48);  
square(430, 348, 48);  
square(617, 348, 48);  
  
// Roof  
fill("#843c0c");  
noStroke();  
rect(251, 152, 389, 157);  
triangle(640, 152, 640, 309, 728, 309);  
stroke("black");  
triangle(251, 152, 139, 309, 363, 309);  
  
// Horn and smoke  
fill("#c55a11");  
rect(587, 116, 24, 75);  
fill("#f2f2f2");  
noStroke();  
ellipse(624, 80, 30, 21);  
ellipse(671, 60, 40, 21);  
ellipse(736, 32, 48, 28);
```

1

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2

Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

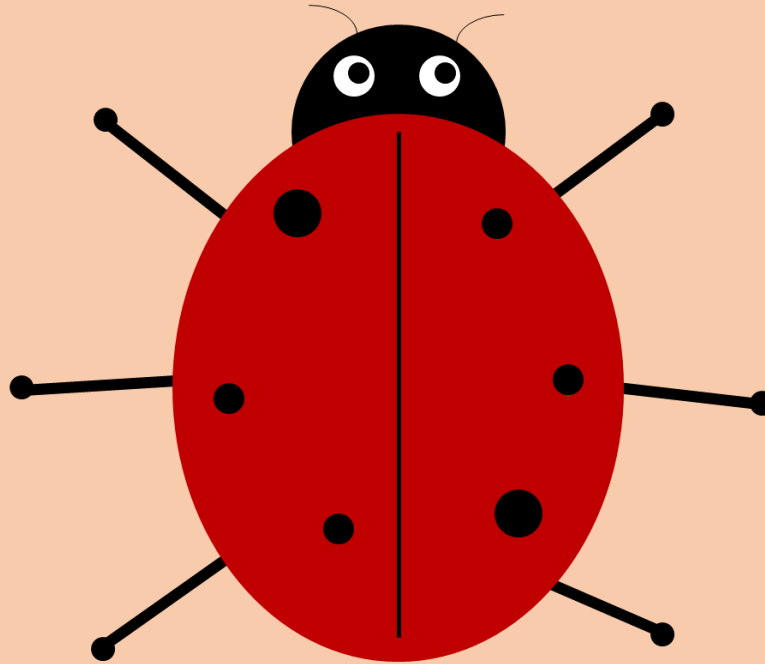
# Ladybug

## Type-in JavaScript Program

```
background("#f8cbad");

// Legs
strokeWeight(8);
fill("black");
line(203, 138, 299, 214);
circle(203, 138, 9);
line(139, 347, 259, 339);
circle(139, 347, 9);
line(199, 547, 302, 474);
circle(199, 547, 9);
line(634, 132, 548, 198);
circle(634, 132, 9);
line(711, 357, 601, 344);
circle(711, 357, 9);
line(634, 535, 548, 495);
circle(634, 535, 9);

// Head
noStroke();
circle(431, 146, 83);
fill("white");
circle(395, 102, 16);
circle(462, 102, 16);
fill("black");
circle(399, 100, 9);
circle(466, 100, 9);
```



```
// Antenas
stroke("black");
strokeWeight(1);
noFill();
arc(514, 77, 76, 44, 180, 270);
arc(360, 77, 76, 44, 270, 360);

// Body
fill("#c00000");
noStroke();
ellipse(431, 350, 351, 426);
strokeWeight(3);
stroke("black");
line(431, 157, 431, 537);
fill("black");
circle(351, 208, 19);
circle(297, 352, 11);
circle(383, 452, 13);
circle(505, 217, 14);
circle(562, 338, 11);
circle(522, 442, 19);
```

1

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Press "Run"  
and enjoy!



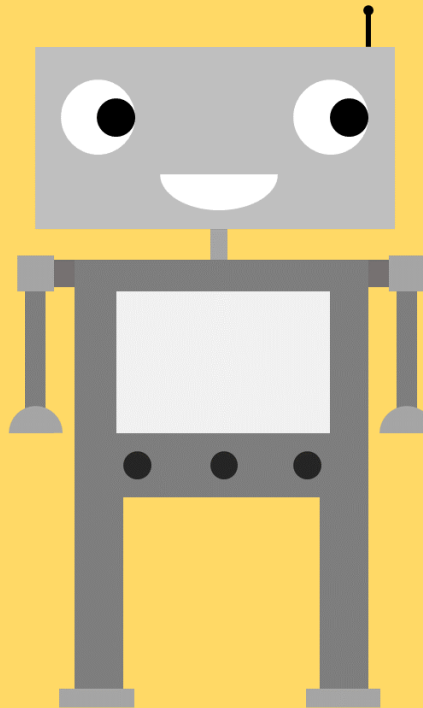
# Robot 2

## Type-in JavaScript Program

```
background("#ffd966");
noStroke();

// Head
fill("#bfbfbf");
rect(264, 63, 281, 141);
fill("white");
arc(404, 163, 91, 56, 0, 180);
circle(311, 117, 30);
circle(494, 117, 30);
fill("black");
circle(327, 117, 15);
circle(509, 117, 15);
rect(522, 38, 4, 25);
circle(524, 34, 8);
fill("#a5a5a5");
rect(401, 204, 13, 25);

// Body
fill("#808080");
rect(295, 229, 228, 185);
fill("#f2f2f2");
rect(327, 253, 167, 111);
fill("black");
circle(344, 389, 11);
circle(411, 389, 11);
circle(476, 389, 11);
```



```
// Legs
fill("#808080");
rect(295, 414, 37, 148);
rect(486, 414, 37, 148);
fill("#a4a4a4");
rect(283, 562, 57, 14);
rect(476, 562, 57, 14);

// Arms
fill("#767171");
rect(279, 229, 16, 20);
rect(523, 229, 16, 20);
fill("#7f7f7f");
rect(256, 253, 16, 93);
rect(546, 253, 16, 93);
fill("#a5a5a5");
rect(251, 225, 28, 28);
rect(539, 225, 28, 28);
arc(263, 364, 41, 42, 180, 360);
arc(554, 364, 41, 42, 180, 360);
```

1

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2

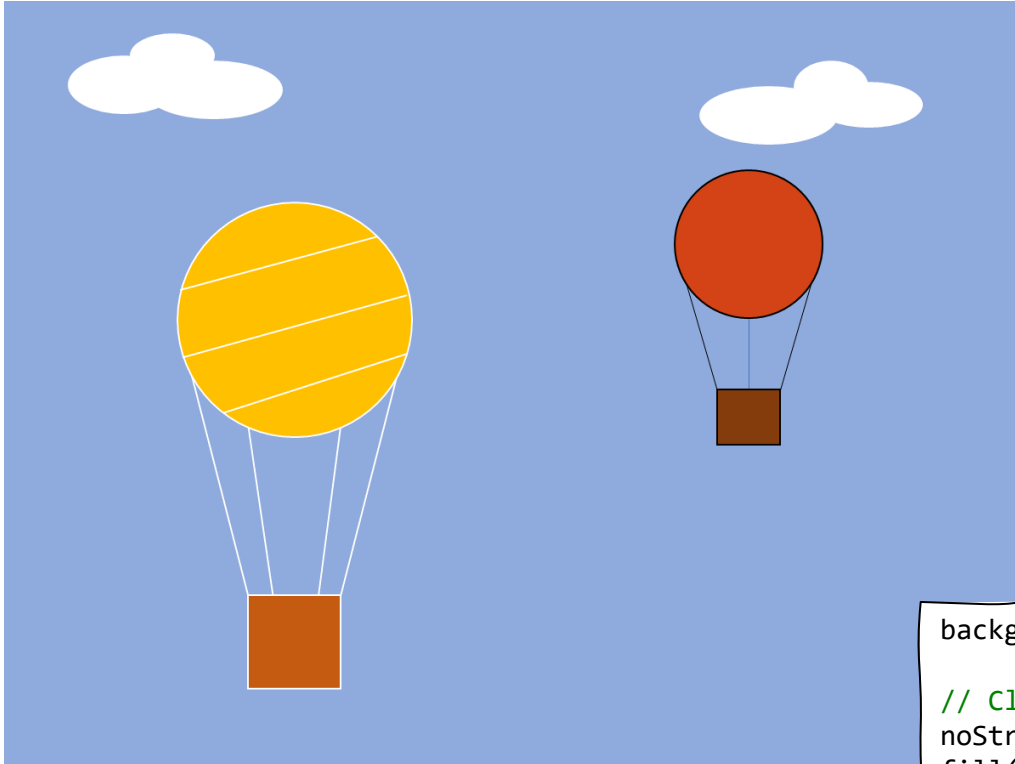
Type-in the above program  
in the Code Editor

3

Press "Run"  
and enjoy!

# Hot Air Balloons

Type-in JavaScript Program



```
background("#8faadc");
```

```
// Clouds
```

```
noStroke();
```

```
fill("white");
```

```
ellipse(94, 66, 80, 48);
```

```
ellipse(132, 42, 67, 34);
```

```
ellipse(169, 71, 110, 45);
```

```
ellipse(600, 89, 109, 47);
```

```
ellipse(650, 67, 60, 46);
```

```
ellipse(679, 80, 85, 36);
```

```
// Yellow balloon
```

```
strokeWeight(1);
```

```
stroke("white");
```

```
fill("#ffc000");
```

```
circle(227, 251, 93);
```

```
line(140, 225, 291, 184);
```

```
line(141, 287, 316, 229);
```

```
line(172, 324, 315, 276);
```

```
line(145, 296, 191, 465);
```

```
line(192, 337, 211, 465);
```

```
line(263, 337, 247, 465);
```

```
line(309, 295, 263, 465);
```

```
fill("#c55a11");
```

```
square(191, 465, 72);
```

```
// Red balloon
```

```
stroke("#101010");
```

```
fill("#d44316");
```

```
circle(584, 190, 58);
```

```
line(536, 223, 559, 303);
```

```
line(584, 248, 584, 303);
```

```
line(632, 221, 609, 303);
```

```
fill("#843c0c");
```

```
square(559, 303, 50);
```

1

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2

Type-in the above program  
in the Code Editor

3

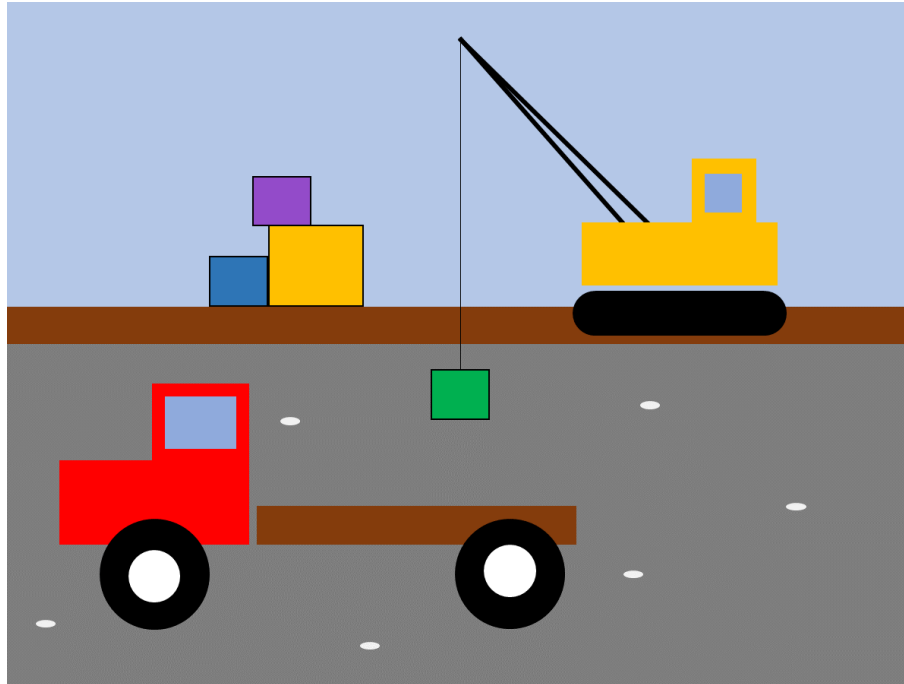
Press "Run"  
and enjoy!

# Trucks

## Type-in JavaScript Program

```
// Background
noStroke();
fill("#b4c7e7");
rect(0, 0, 800, 267);
fill("#843c0c");
rect(0, 267, 800, 34);
fill("#7f7f7f");
rect(0, 301, 800, 299);
fill("#f1f1f1");
ellipse(33, 545, 18, 7);
ellipse(249, 367, 18, 7);
ellipse(320, 563, 18, 7);
ellipse(565, 352, 18, 7);
ellipse(551, 501, 18, 7);
ellipse(693, 441, 18, 7);
```

```
// Flatbed truck
fill("red");
rect(46, 401, 167, 74);
rect(127, 334, 86, 67);
fill("#8faadc");
rect(139, 346, 62, 45);
fill("#843c0c");
rect(219, 440, 281, 35);
fill("black");
circle(129, 502, 49);
circle(441, 502, 49);
fill("white");
circle(129, 502, 23);
circle(441, 502, 23);
```



```
// Crane truck
stroke("black");
strokeWeight(3);
line(399, 32, 540, 194);
line(399, 32, 563, 194);
strokeWeight(1);
line(399, 32, 399, 321);
noStroke();
fill("#ffc000");
rect(505, 193, 171, 55);
rect(602, 137, 57, 56);
fill("#8faadc");
rect(615, 150, 31, 32);
fill("black");
circle(512, 272, 19);
circle(670, 272, 19);
rect(512, 253, 158, 38);
```

```
// Packages
stroke("black");
fill("#00b050");
square(375, 321, 43);
fill("#2e75b6");
square(178, 223, 43);
fill("#ffc000");
square(221, 196, 70);
fill("#934bc9");
square(210, 153, 43);
```

1

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and click "Code Now" button

2

Type-in the above program  
in the Code Editor

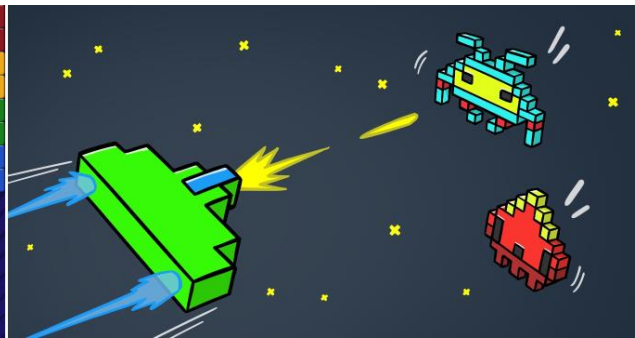
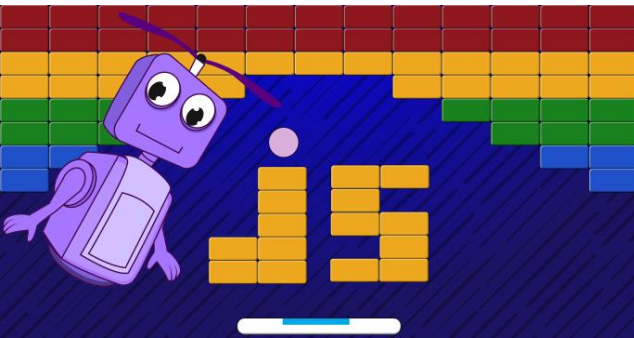
3

Press "Run"  
and enjoy!

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<https://www.youtube.com/watch?v=mrG33P1lwdI>

<https://www.youtube.com/watch?v=-96ajr1P8BM>

<http://howtodrawdat.com/how-to-draw-a-simple-cat-with-simple-shapes-tutorial-for-children-and-preschoolers/>

<http://www.eyedrawit.com/tutorials/>

<https://www.amazon.com/Lets-Draw-House-Shapes/dp/1404227954>

<http://kiddopedia.net/how-to-draw-a-castle-step-by-step-for-kids/>

<https://www.how-to-draw-funny-cartoons.com/cartoon-dog.html>

<https://www.youtube.com/watch?v=YZG704D-6O0>

<https://www.pinterest.com/pin/311874342921041781/>

<https://www.easypeasyandfun.com/how-to-draw-a-ladybug/>

<https://paintingvalley.com/easy-ladybug-drawing>

<https://design.tutsplus.com/tutorials/how-to-create-a-cute-robot-game-sprite-using-ssr-in-adobe-illustrator--vector-8442>

<https://www.youtube.com/watch?v=QWoL3WBZT7g>