

Bouncing Ball

CODE



```
int rad = 60;      // Width of the shape
float xpos, ypos;  // Starting position of shape

float xspeed = 2.8; // Speed of the shape
float yspeed = 2.2; // Speed of the shape

int xdirection = 1; // Left or Right
int ydirection = 1; // Top to Bottom

void setup()
{
  size(640, 360);
  noStroke();
  frameRate(30);
  ellipseMode(RADIUS);
  // Set the starting position of the shape
  xpos = width/2;
  ypos = height/2;
}

void draw()
{
  background(102);

  // Update the position of the shape
  xpos = xpos + ( xspeed * xdirection );
  ypos = ypos + ( yspeed * ydirection );

  // Test to see if the shape exceeds the boundaries of the screen
  // If it does, reverse its direction by multiplying by -1
  if (xpos > width-rad || xpos < rad) {
    xdirection *= -1;
  }
  if (ypos > height-rad || ypos < rad) {
    ydirection *= -1;
  }

  // Draw the shape
  ellipse(xpos, ypos, rad, rad);
}
```

/**
* Bounce.
*
* When the shape hits the edge of the
window, it reverses its direction.
*/