

Example 1. How do you move a sprite down, smoothly, at 100 pixels a second

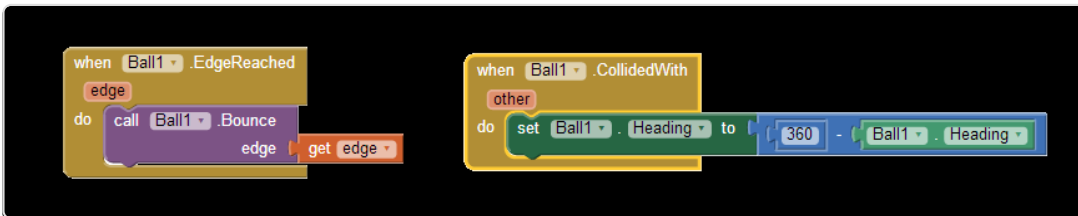
```
when Screen1.Initialize
do
  set ImageSprite1 Heading to 270
  set ImageSprite1 Speed to 5
  set ImageSprite1 Interval to 50
```

An ImageSprite's speed, pixels/second, is actually determined by two properties. The Interval property specifies how often the sprite will be moved-- it is similar to the TimerInterval property of the Clock component. The Speed property specifies how many pixels the sprite will move each interval (the property is misnamed). In this example, the sprite moves 5 pixels per 50 ms, or 1 pixel per 10 ms, which is 100 pixels/second.

A Sprite's Heading property specifies the direction it moves. As shown below, a Heading of 270 degrees will move the sprite down.



Example 2. How do you make a ball bounce?



App Inventor provides a Bounce block that causes a ball to bounce off the edge of a canvas. You typically use Bounce within the EdgeReached event handler, as that event handler tells you which edge was hit, as a parameter, and you can plug that parameter into the Bounce function (which needs to know which edge of the canvas to bounce off).

You can also bounce off other objects (sprites or balls). The CollidedWith event handler is triggered when you hit another object. The Bounce function only works off a Canvas edge, so you cannot use it. But you can make the ball bounce in the other direction by setting its Heading property to 360 minus its current setting, as in the blocks above.