

# Getting X

In order to “hit” the duck we need to know its coordinates.

```
Dim duckXLocation As Integer
```

Integer variable that will hold value of x coordinate of picDuck.

```
Sub MoveRight()  
    picDuck.Location = New Point(x, y)  
    x = x + 5  
    duckXLocation = picDuck.Location.X  
    lblPosition.Text = duckXLocation
```

Position of X coordinate is constantly being calculated each time Timer1 fires MoveRight()

```
End Sub
```

```
Sub MoveLeft()  
    picDuck.Location = New Point(x, y)  
    x = x - 5  
    duckXLocation = picDuck.Location.X  
    lblPosition.Text = duckXLocation
```

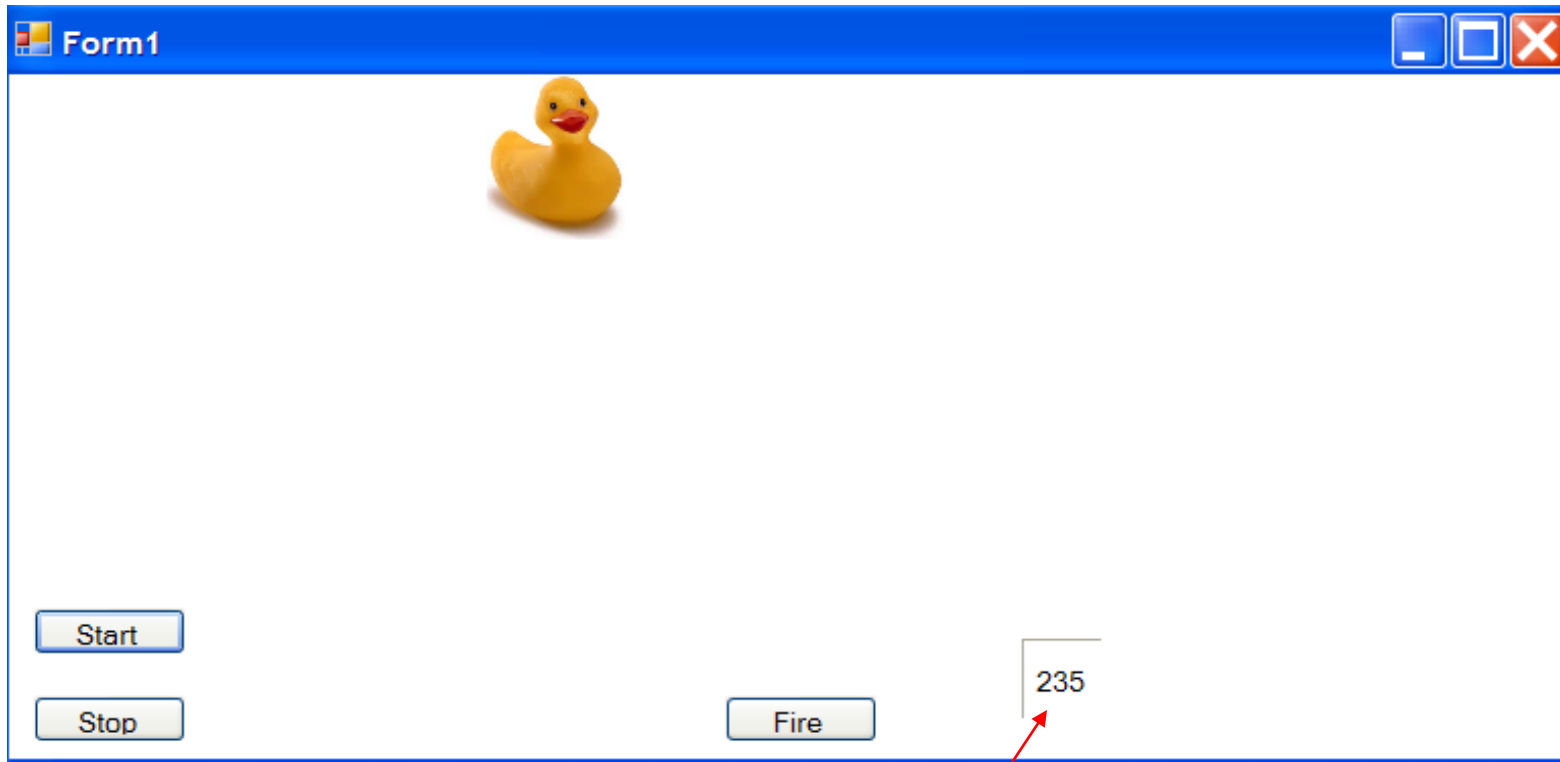
OR

each time Timer2 fires MoveLeft()

```
End Sub
```

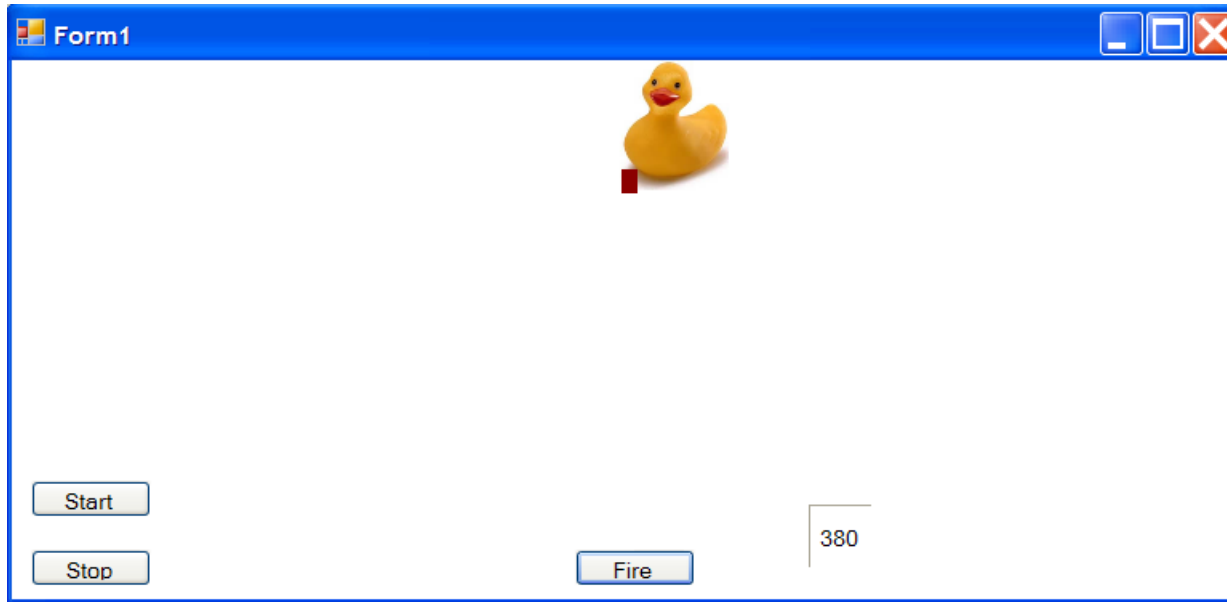
Value of duckXLocation is continually updated and displayed in lblPosition

# X Coordinate of Duck



x coordinate

# How To Shoot A Duck



The y coordinate of the duck will remain constant(0) while the x value will change.

The x value of the bullet will remain constant (381) but the y coordinate value will change.

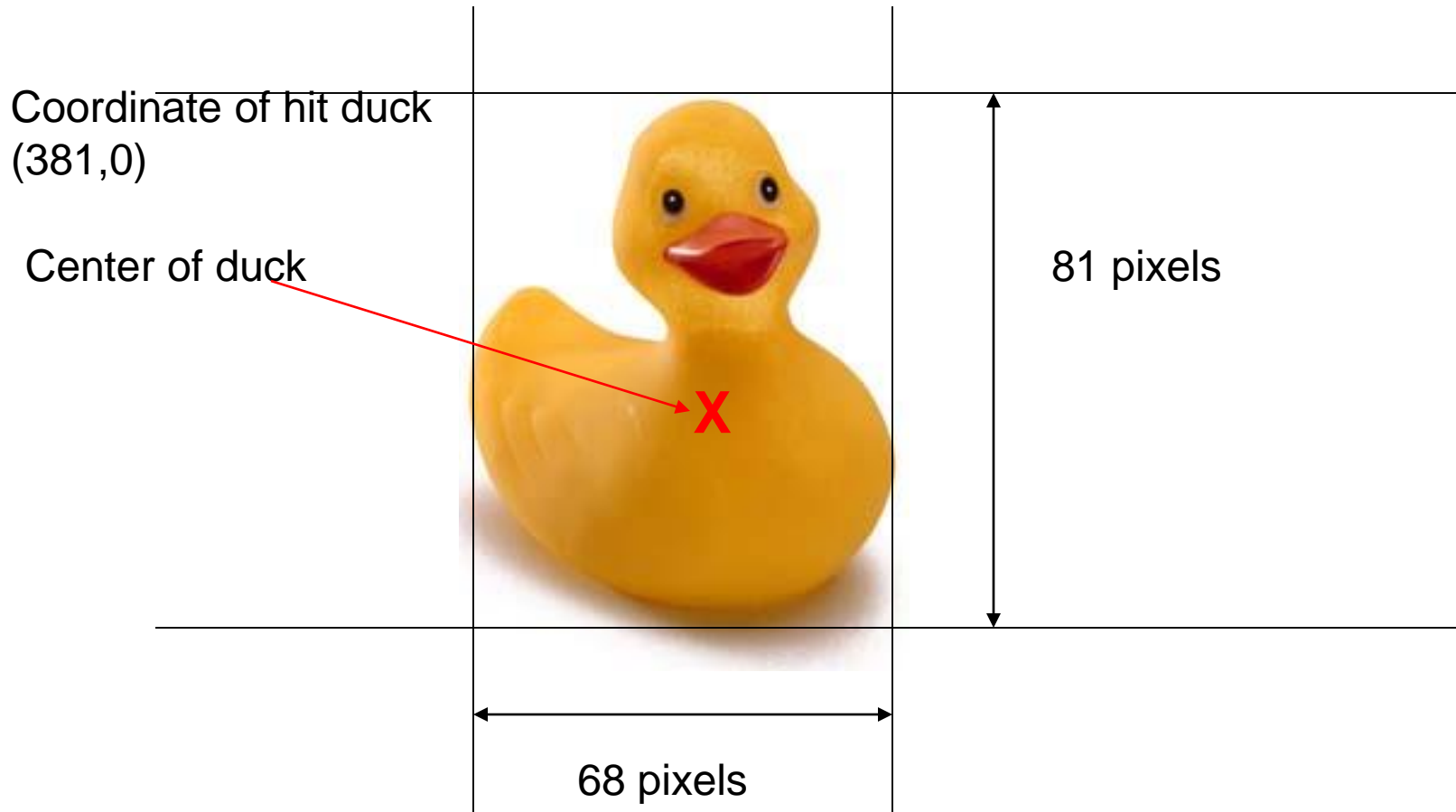
The key to a perfect shot is to have the y coordinate of picBullet be 0 at the exact moment that the x coordinate of picDuck is 381.

The odds of this happening are..... not good. Yeah Ducky is safe!

# Not So Fast My Web-Footed Friend

MinimumSize	0, 0
Modifiers	<b>Friend</b>
Padding	0, 0, 0, 0
Size	<b>68, 81</b>
SizeMode	<b>StretchIn</b>

picDuck has a width of 68 pixels and a height of 81 pixels. This means that if the bullet has a margin of error that makes hitting the duck much easier.



# Coding A Hit

Before a hit duck could only occur If the duck was at  $x = 381$  and the bullet was at  $y = 0$  at the same time.

We can now say that if the duck is between 381 and  $381 + 68 = 449$  while the bullet is between 81 and 0, we have a hit.

Lets modify our previous program and add a label to track the y coordinate of picBullet.

```
Dim duckXLocation As Integer
Dim bulletYLocation As Integer
```

---

```
Sub MoveRight ()
    picDuck.Location = New Point(x, y)
    x = x + 5
    duckXLocation = picDuck.Location.X
    bulletYLocation = picBullet.Location.Y
    lblPosition.Text = duckXLocation
    lblPositionBullet.Text = bulletYLocation
End Sub
```

---

```
Sub MoveLeft ()
    picDuck.Location = New Point(x, y)
    x = x - 5
    duckXLocation = picDuck.Location.X
    bulletYLocation = picBullet.Location.Y
    lblPosition.Text = duckXLocation
    lblPositionBullet.Text = bulletYLocation
End Sub
```

# A Hit!

```
Sub MoveRight()  
    picDuck.Location = New Point(x, y)  
    x = x + 5  
    duckXLocation = picDuck.Location.X  
    bulletYLocation = picBullet.Location.Y  
    lblPosition.Text = duckXLocation  
    lblPositionBullet.Text = bulletYLocation  
    If (duckXLocation >= 381) And (duckXLocation <= 449) And (bulletYLocation <= 68) And (bulletYLocation >= 0) Then  
        Timer1.Stop()  
        MsgBox("Hit")  
    End If  
End Sub
```

---

```
Sub MoveLeft()  
    picDuck.Location = New Point(x, y)  
    x = x - 5  
    duckXLocation = picDuck.Location.X  
    bulletYLocation = picBullet.Location.Y  
    lblPosition.Text = duckXLocation  
    lblPositionBullet.Text = bulletYLocation  
    If (duckXLocation >= 381) And (duckXLocation <= 449) And (bulletYLocation <= 68) And (bulletYLocation >= 0) Then  
        Timer2.Stop()  
        MsgBox("Hit")  
    End If  
End Sub
```

# Raw Carnage...The Movie

