

Using Game Maker 8: How to do Projectile Motion

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<http://cs.oregonstate.edu/~mjb/gamemaker>

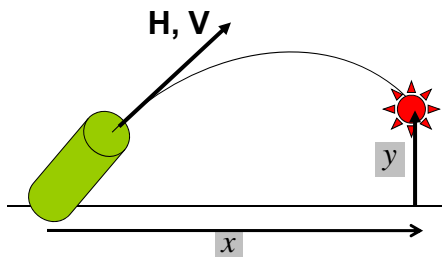
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Projectile Motion Simulation



H and V are the object's Horizontal and Vertical speed

Quantities during Flight:

$$x = H \times t$$

$$y = V \times t - \frac{1}{2} \times g \times t^2$$

x,y = distances in feet

H,V = horizontal and vertical initial velocities in feet / sec

T = time in seconds

g = gravitational acceleration = 32.2 feet / sec²



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Projectile Motion Simulation Setup

1. **Ball:** various→Ball1.ico
2. **Goal:** maze→Finish.gif

Scored: Sounds→applause.wav

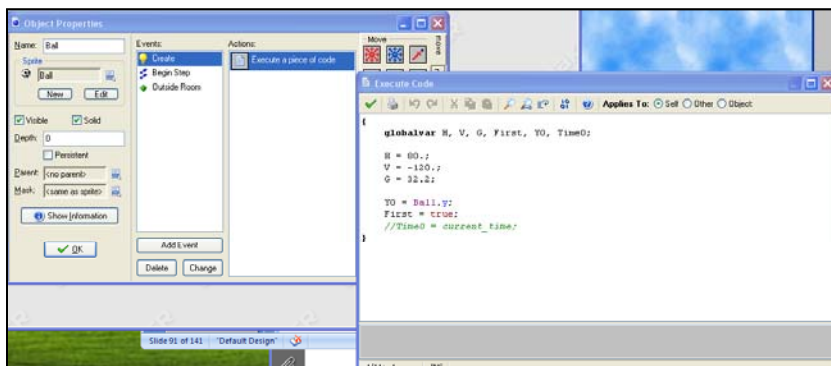
Field: Backgrounds→sky.gif



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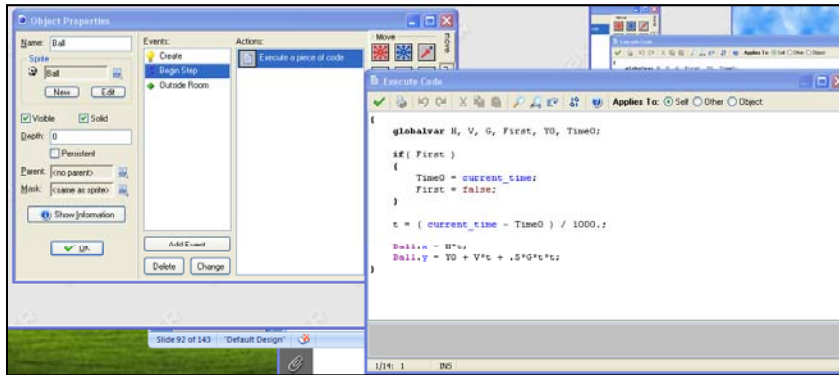
A Script to Setup Everything



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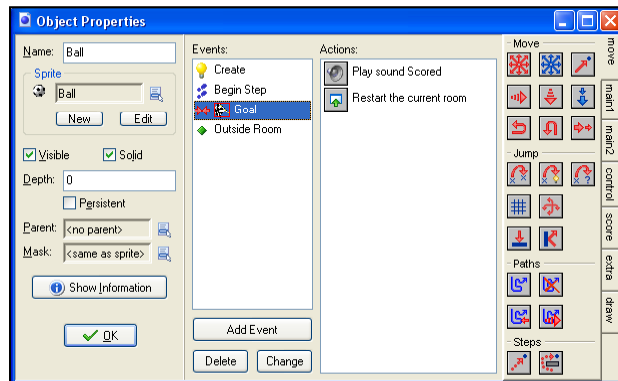
A Script to Compute X and Y



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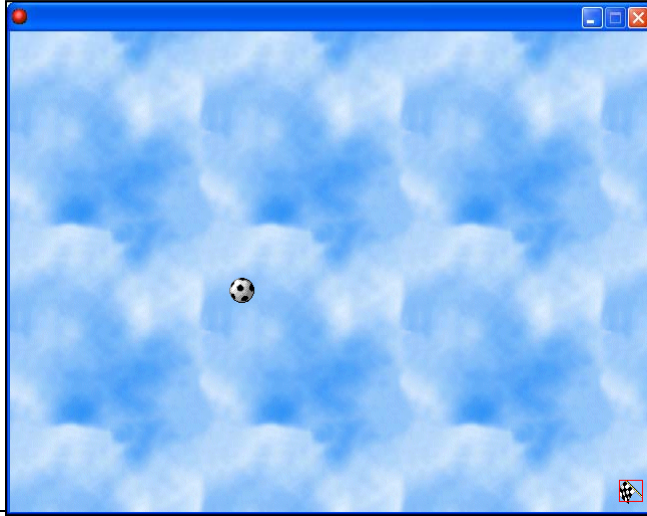
What to do if Actually Hit the Goal



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projectile.gmk



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