

Physically Based Simulation – Dr. Donald House
Final Project Proposal
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I propose emulating a “warp,” a video game element, with the popular fantasy aesthetic. The effect will consist of two simple elements working together.

Animated and Textured Geometry

A typical “magic” effect in video games uses a circular texture mapped to simple geometry. This geometry is then animated under the character giving a Mandala type effect. This effect is sometimes coupled with a concentric circle pattern giving the viewer the idea that the source of this magical phenomenon stands at the center of the circle.

Flocking System

The second element of this effect is a simple flocking system with the ability to be choreographed using a conic vortex and / or vortices. These particles will be textured using sprites. These particles will radiate upward from the mandala by incorporating either a wind force or a vortex.

Final Look

I will create two flocks of “magic” particles using sprites to give the appearance of “fire” and “ice.” These flocks will be generated from a red mandala (for fire) and a blue mandala (for ice). The flocks will be choreographed to travel upwards in an arc to meet in the middle of the space. I will generate a shower of particles where the fire and ice “magic” particles meet. These particles will be textured to look like mist or water drops and they will fall to the ground.

Visual References

<http://www.youtube.com/watch?v=xUflC9zMIqM>

<http://www.youtube.com/watch?v=Yxwxxu0GGjw&feature=related>