Wizard Combat Game Design Doc

Current Author: Jiayu Ye

Annotation Explained

Red is currently stucked part.
Blue is finished part

Art Style

7.24.2014 UPDATE: **TODO** For now the art style is shabby.
The Style as lumo- http://www.triple-eh.net/ is really cool.
Basically, we can have a fatter and cutter wizard. The style in lumo is exactly what it should seem like.
And since we have a lot of physic force applied, it's more reasonable to have a character that can rotate and fly like a ball. (This induces the problem of stand properly again after over-rotated).
Random Thought
And is that possible to make the magma more realistic? Like having it worked with water effect?

Asset List

1. Character

1.1 Player Wizard
Nearly Done, remaining rotation actions.

1.2 Ai Wizard
Not started

2. Particles

2.1 Skills
Fireball, thunder, under-dev

3. Terrain
Magma and lava, done.
A icy place for low drag.
A rainy place for medium drag.

4. Weather

Interactive fireRain can be considered, but may not be accurate since the world particle system.
Non-player-interactive Snow/Rain will not be painful to do.

5. Music

No expertise on this for now.

Game Logic

1 Fire Ball Throw

Redo with MovableUnit, so that it will throw to a specified place.
Need to redo the Fireball into a particle which should have a following trail.

2 Fire Ball ForceField

Now the forceField of the explosion is dealt by AddExplosionFoce on RigidBody which seems unstable when the explosion is generated inside the player.
So the mechanism should be changed to When the fireball particle collider touches any collider, it should explode then.
(This is tested with world particle collider. But the explode point is not satisfactory. It may explode at the back the object. A furthur test can be done by using a raycast so that if there is any near colliders, then explode.)
Now a new solution is using a simple collider, but ***NOTICE:attach a rigidbody***. Or it won't work with OnTriggerEnter.
7.14.2014 UPDATE: It works now with throwing onto a static object. This need more precision test with moving object. Like Using AI or if Network part can be avaiable.

3 Meteor

Maybe it need to do with another action
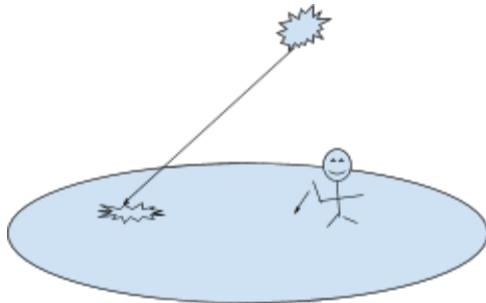
First it may works with a static generation in the sky.
7.19.2014 UPDATE: Now meteor is avaiable through shortcut W, using a simple particle system.

4. Shrinking Terrain

7.14.2014 UPDATE: Now Redo the shrinking part with a wall that generated by blender.

And doing a raycast from the center to the player position to detect if the ray hit the wall(collider). So it's possible to accurately detect a user standState (OnFire or OnStone).

7.19.2014 UPDATE: Now the Shrinking Terrian is updated discretely. (Using InvokeRepeat())

7.24.2014 UPDATE: **TODO** To make it more realistic, it will cool to update discretely with continous effect. As an example, we may have the area updated after a vocalno errupt, and the erruption is discrete. And when the vocalno errupt, the height of the magma may change continously. It's not hard to think about the same thing when considering rain and swamp.

NOTICE: A plane mesh collider only has one facet.

7.15.2014 UPDATE: Now there is a cool effect after player is outside the standzone(on magma).
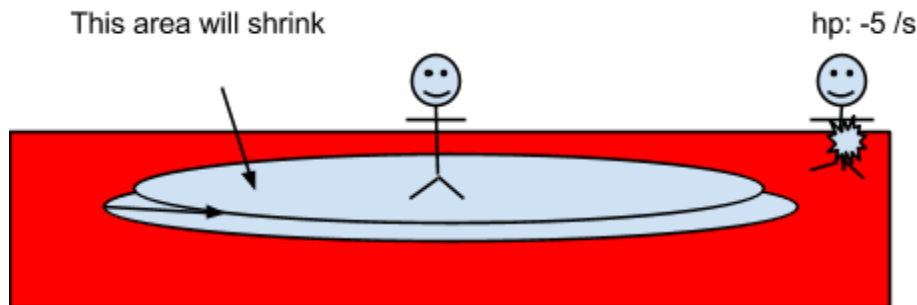
5. Health and strength

6. Random Attack

Idealy, we can use the physical material like the usage in this tutorial

http://unity3d.com/learn/tutorials/modules/beginner/physics/assignments/bouncing-ball

So that there are random fireworks to enrich the combat field

3D or 2.5D

itween will help when changing into the view as Warcraft3.

Rendering Depth

The rendering is not statisfactory, when it's far away from the camera, the particle is not rendered then.

RTS Mouse Click Movement

Used itween moveto. Itween Moveto has weird memory issue when there are mutiple click happen. It need to be another implementation.

Now it's cool to use **Unity self-dev Navigation System** in the simplest manner.

Obstacle

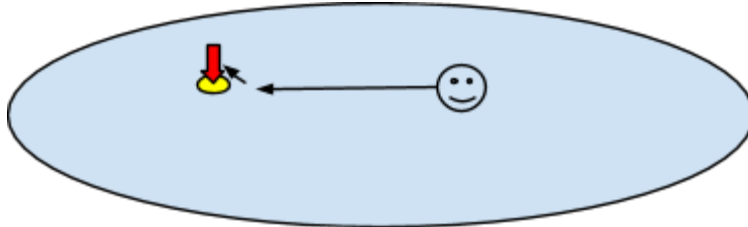It should not be too hard to get the obstacles on the way by the Navigation System.

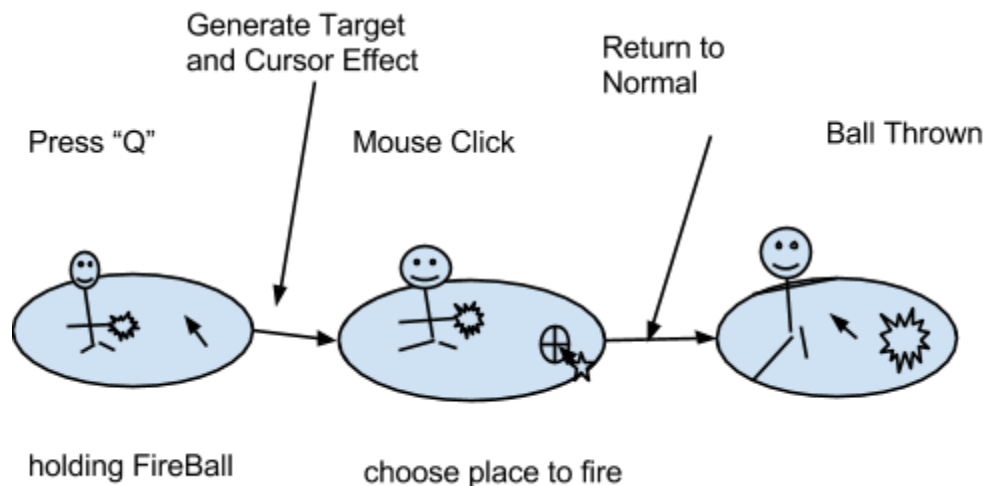Solve the floating issue by LayerMask in Raycast.
Note: Place the objects that ray wants to collider in the layerMask layer

Mouse Effect

There should be a highlight cursor showing the point player wants to move

Press Button to set into magic throwing mode and after magic is thrown, return Button State.

Dependency: Fire need to change state of the player.
Cursor Effect finished.

Enemy AI

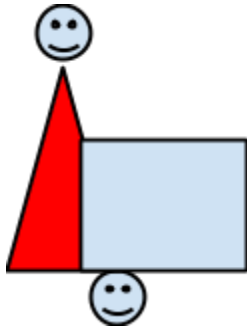Simply follow the stealth tutorial.
We will have a FSM that may have three state, Attacking, Wandering.
If there is any enemies in a fixed size sight area, AI will attack and be still.
If there is no enemies, just give a some random way to go.

1. patrolling

2. Attack Sight

A cone sight should be solved by raycast.

Cool Down and GUI

Need to figure out how to work on cool down and make neater GUI.
Maybe After Unity GUI is published(4.6)

Open Source and Team Code Management

Urgent if another guy wants to contribute. It's too expensive to work with Unity Asset Server.
Using git will make the meta data really messy.
Primitive idea is too store model(.fbx and .psd) into something like dropbox. And store the usable code on github

Network

A currently not workable problem