**Use Case UC3: Hit a Wall**

**Scope:** “Need for Spear”  
**Level:** Subfunction

**Primary Actor:** Player

**Stakeholders and Interests:**

- Player: Wants to bounce the enchanted sphere off of the wall to hit a certain obstacle.

**Preconditions:** Enchanted Sphere is moving downwards.

**Success Guarantee (Postconditions):** Enchanted sphere bounced off of the wall. It moved in the opposite direction it came back from with the same speed and with the angle equal to and symmetric around the norm of the hit surface.

**Main Success Scenario:**

1. The Player moves the Noble Phantasm so that the Enchanted Sphere will fall on it.
2. Enchanted Sphere bounces from Noble Phantasm with the same speed it came with and with the angle equal to and symmetric around the norm of the Noble Phantasm.
3. Enchanted Sphere hits a wall.

**Extensions:**

\*a. A previously Explosive Obstacle’s remains hit the Noble Phantasm:

1. The Player loses a chance.

1a. Player has enough chances to continue, Noble Phantasm will start from the middle and Enchanted Sphere will be thrown perpendicular to the Noble Phantasm.

1b. Player doesn’t have any chances left, the game ends.

1a. Enchanted Sphere misses the Noble Phantasm:

1. The Player loses a chance.

1a. Player has enough chances to continue, Noble Phantasm will start from the middle and Enchanted Sphere will be thrown perpendicular to the Noble Phantasm.

1b. Player doesn’t have any chances left, the game ends.

1b. Enchanted Sphere hits one of Noble Phantasm’s corners:

1. Enchanted Sphere reflects from the corner.  
   1a. Enchanted Sphere falls down.

1b. Enchanted Sphere hits a wall.

1c. A player picks up a magical ability and it causes the other player to miss Enchanted Sphere:

1. The Player loses a chance.

1a. Player has enough chances to continue, Noble Phantasm will start from the middle and Enchanted Sphere will be thrown perpendicular to the Noble Phantasm.

1b. Player doesn’t have any chances left, the game ends.

2a. Enchanted Sphere hits Noble Phantasm while it’s still moving:

1. Enchanted Sphere reflects with an angle of 45 degrees relative to the line of Noble Phantasm movement direction and the speed of the enchanted sphere stays the same.

3a. Enchanted Sphere does not hit a wall:

1. It hits an obstacle and behaves like how it normally behaves when it hits an obstacle.

**Frequency of Occurrence:** Frequently.

**Open Issues:**

- What are the harmful effects that can be caused by the other player’s magical abilities?