

Reflective Shield 2.0

"Fabulous."

In the MAGE environment a good offense is a good defense. The reflective shield has the ability to absorb magical attacks for a short period and release the energy back at the opponent. The shield also holds the ability to change magical attacks into healing energy to aid allies in battle. The second incarnation of the reflective shield is well known for its bizarre display of lights when it is being used, a departure from the somber appearance of its older, and weaker, sibling. The user of this shield is sure to be the center of attention anywhere, battlefields or otherwise.

Requirements

1. General Description
 - a. Electronic shield that will receive MIRP packets, reflect attacks, and emit healing packets.
2. Communication with MAGE system
 - a. The shield must be able to communicate through MIRP packets and CANbus.
 - b. The shield must be able to receive valid MIRP packets.
 - c. The shield must be able to absorb and reflect Magical Attack MIRP packets and healing MIRP packets.
 - d. The shield must transmit "I'm Dead" packet through CANbus to HIU if the shield has been hit too many times.
3. Receiving/Reflecting Magical Attack MIRP
 - a. The shield must be able to receive MIRP packets with an angle relatively close to 180 degrees.
 - b. The shield must be able to identify a valid Magical attack and allow the user to either: (this means the shield will only react to Magical attacks)
 - i. Absorb and reflect the same magical attack packet.OR
 - ii. Absorb the attack "energy" and allow the user to change it to a healing packet to emit.
 - c. Once the shield has been hit with a magical attack it should store the "energy" for a brief period allowing the user to release it on command.
 - i. A time limit should be implemented forcing the user to release the energy before a given time frame i.e. 5 seconds max.
 - ii. If the user does not release the energy before the given time frame, the shield will be damaged leading to the destruction of the shield.
4. IR Transmission
 - a. The shield must be able to emit MIRP packets with at least a 90 degree spread from the shield.
 - b. The transmitted MIRP packets must be able to achieve at most 10% error rate at 35 ft range.
5. Indicators

- a. The shield must alert the user with visual and audible indication when the shield has absorbed a valid magical attack.
 - i. A countdown timer should be implemented to indicate when the user should release the stored energy.
 - b. The shield should have a health count and decrement with each unsuccessful reflection i.e. when the user doesn't release the energy absorbed.
 - c. The shield must alert other players when an attack or a healing packet has been reflected by the shield both visually and audibly.
- 6. Visual Display
 - a. The shield must be adorned with fabulous, attractive, and animated lighting.
 - b. Each animation should correspond to the received or transmitted MIRP packet.
- 7. Form factor and casing
 - a. Being a shield it should reasonably resemble an arm mounted shield.
 - b. Should be light weight (easily carried on one arm) and durable in design.
 - c. Should be usable by both left and right handed users.
 - d. Dimensions: should not exceed 2 square feet in area and 1.5 inches in thickness.
- 8. Power
 - a. The shield must be internally powered.
 - b. The power supply should be able to power the entire unit through at least 2 hours of game play.