

# HIT ME!

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## ABSTRACT

Hit Me! is a two-player hyper-interactive, physical game that tests speed, agility and the ability to take good snapshots. Utilizing ubiquitous technology and incorporating the concept of the metagame, Hit Me! encourages face-to-face real-world interactions, not only by the players but also by the spectators.

## Keywords

Ubiquitous technology, the metagame, physical games, spectator experience, wireless communication, wearable technology.

## INTRODUCTION

The emergence of games using ubiquitous technology has opened up a whole new genre of entertainment, merging out physical and virtual worlds. Hit Me! lies on this spectrum, but emphasizes more our physical gaming world, which at times seems almost forgotten. As we become increasingly dependent on technology for communication and play, there is a loss of real-world interactions and in some extreme cases, the loss in ability to engage in real-world social situations [1]. Combining social mechanics of both online and real-world communities, and utilizing technology on physical and virtual levels, Hit Me! is a fast-paced, hyper-interactive game designed to encourage face-to-face interactions, not only by the players but also by the spectators.



**Figure 1. Hit Me! Tournament 2005, held May 31, 2005, Tishman Auditorium, New School University, NYC.**

## THE GAME

Hit Me! is a two-player physical game that tests speed, agility and the ability to take good snapshots. Two players, one Red, the other Blue, wear wireless button and wireless camera-mounted hoods. The game is mediated by a Referee, and extra points are awarded by a Judge.

To start the game the players position themselves back to back with arms outstretched in the center of a ten-foot diameter playing circle. Once "Hit Me!" is heard, the game has started.

The object of the game is to hit the opponent's button on top of the head. Once a hit is made, the hitter's camera takes a snapshot of the victim. The hitter receives a point for the hit, and up to 2 additional points can be awarded by the Judge based on the quality of the snapshot.

Each game lasts for 30 seconds, and the bell rings to signify when the 30 seconds are over. The clock is stopped every time a hit is made and then continued after the points are given. When the clock continues, the players must start again in the starting position. The clock will also be stopped and a player will also be awarded a point if the opponent steps out of the circle.

The winner is the player with the most points at the end of the game. If the score is tied at the end of a game, then the game goes into sudden death. In sudden death, the winner's hit and snapshot score will be calculated into the final score of the game.

A player will immediately be disqualified if the Referee deems any play as dangerous play. The opponent automatically wins the game if a player commits any of the offenses in a manner considered by the Referee to be careless, reckless or using excessive force. The Referee has ultimate say on the matter of dangerous play, and the player will not be able to contest.

## PHYSICALITY

Digital physical games, such as Dance Dance Revolution (DDR), have been the inspiration to promote physical activity through the use of technology. Hit Me!, incorporates the use of wireless communication and wearable technology to increase speed and mobility, to add to the physicality of the game.

Hit Me!, also influenced by Twister, creates an opportunity for physical interaction between the players. By placing the

button on top of the head which is a central point of balance on the human body, the players inevitably come into contact with each other when lunging towards the opponent or blocking the opponent's hits.

### THE METAGAME

“Metagaming refers to the relationship between the game and outside elements, including everything from player attitudes and play styles to social reputations and social contexts in which the game is played [2].” In Hit Me! the metagame aspect is just as important as the game itself.

### Spectator Experience

Inspired by other spectator events like the gladiators of Ancient Rome and the Japanese wrestling sport of Sumo, Hit Me! has been designed to engage not only the players but also those watching the game. The ten-foot diameter circular playing field creates a visual point of focus, making it easy to follow the action. Moreover, the large projected interface helps the spectator to keep track of the course of the game with ease.

Hit Me! is also influenced by Janken Pikopiko, a modified version of rock, paper, scissors that uses a shield and a plastic squeaky hammer, popular on Japanese variety shows in the 80's. Hit Me!, like Janken Pikopiko, incorporates intense spurts of action generated from what is a modification of the simple game of tag. The result is a game that is easy to understand and enjoyable to watch.

### Social Context

Hit Me! is meant to be played in a public environment, such as a party or a tournament. The game is designed to lure people out of the privacy of their homes, and to create an opportunity for people to socialize and interact with one another, face-to-face.

### Performance

Using a tournament structure and emphasizing individual players help blur the line between performance and game in Hit Me! There is ample room for players to create their own style of playing and to develop game personas. The performance aspect of the game adds yet another layer of entertainment to the spectator experience. See video clips under Additional Information.

### TECHNOLOGY

The technology used in Hit Me! reinforces the idea of the metagame. The projected virtual interface is a crucial component in connecting the spectators to the game. Essentially, the ubiquitous technology is key in tying the real world to the game world. Moreover, the online communities of Hit Me! serve to expand and strengthen the relationship of the spectators to the game itself.

### TECHNICAL DETAILS

In the current version of Hit Me!, the acrylic box on each player's padded, medium-weight cotton twill cap, houses a retro arcade push button, attached to a hacked wireless doorbell, as well as a miniature wireless video camera. The radio frequency (RF) signal from the doorbell component is transmitted to a receiver attached to a microcontroller,

which is in turn sending serial data to a computer. Simultaneously the computer is receiving two video input signals from the wireless video cameras receivers. The current version of Hit Me! uses Macromedia Director to keep score, keep time and create snapshots off the live video feed. The Judge can directly input the additional snapshot points through the Director interface on the computer. Each snapshot that is made is shown on the projected image, and archived at the bottom of the screen. Points, timer and hit indicators are also shown on the projected image.

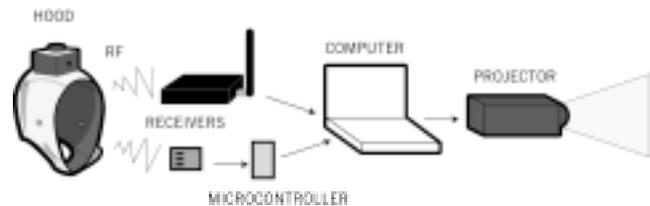


Figure 2, Hit Me! technical mapping.

### FUTURE PLANS & DEVELOPMENTS

#### Software Interface

More flexible and customizable software interface programmed in C++ or Java is presently being explored. This improvement would allow more control of video and serial data, as well as easier transfer of images and data for real time online documentation.

#### Development of Online Community

The virtual Hit Me! community should be further developed so that members can be easily notified of developments in the game, tournament announcements, and tournament documentation. Ideally the website would be able to connect Hit Me! tournaments that are played in different locations, all over the world.

#### ADDITIONAL INFORMATION

Video Clips: <http://a.parsons.edu/~kaho/hitme>

Blog: <http://a.parsons.edu/~kaho/hitme/blog>

#### ARTIST BIO

Kaho Abé is a recent graduate of the Design and Technology MFA program at Parsons School of Design. She is a fashion designer experimenting in the areas of game design and wearable technology. When not in front of a computer or a sewing machine, she can be found wondering why robots don't love her as much as she loves them.

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