

BANG!

COSC 829 Project

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OBJECTIVE

To further explore the use of data glove,
integrated within a multi-user
environment.



BANG!

◉ Shooter Game:

- Multi-player maze world:
 - First-Person View
 - Find and defeat opponent
 - Mini-map shows:
 - Your location on map
 - Opponent location when detected
- Health:
 - Attacks cause loss of health
 - When your health reaches 0, you lose



BANG!

◉ Shooter Game:

■ Environmental Objects:

○ Replenishment Packs:

- Ammunition
- Medicine

○ Hazards:

- Alarms
- Mines

○ Appear randomly at game start

○ Require timer to expire prior to reuse



MECHANICS

- Movement is Keyboard controlled

Key	Action
W	Move forward
A	Turn left
S	Turn right
D	Turn around
T	Toggle fast or slow movement (forward only)
O	Forfeit



MECHANICS

- Actions are Data Glove controlled

Gesture	Action
1	Throw a grenade
2	Shoot (light damage)
3	Punch (heavy damage)
4	Kick (medium damage than light over time)



SOUND

- ⦿ Sounds alert the opponent to your presence:
 - Alarms
 - Mines
 - Moving Fast
- ⦿ Representation:
 - Arrow on the display indicating direction of sound
 - Visibility on mini-map



FUNCTIONALITY SUMMARY

Functionality	How it is used in project
Sound:	All damage causing actions and effect will produce an appropriate sound. When one opponent hears another, there will be a sound and a visual cue as to the direction the sound came from.
Lights:	The environment is fully lit.
Timer:	The kick action causes the player to bleed. The player loses health until they reach a medical pack or until all of their health points are spent. The timer is used to lose health at a certain rate. The medical and ammunition packs have a replenishment timer. Once a player uses a pack, a certain amount of time has to elapse before the pack is usable again.
Keyboard:	The keyboard controls movement.
Sensors:	The packs, mines, and alarms will be equipped with sensors to trigger their action.
Collision:	Collision will be enabled to prevent the player from going through walls and objects.
Multi-user:	The simulation is a multiplayer game that requires the players to access the virtual environment from separate work stations.
Extra Credit:	The data glove controls the weapons. We need to implement messaging between players for the sound detection.

