

# The White Laboratory Manual

## Story

'The White Laboratory' is a research organization on robotics, which does all its research experiments in ultra space to reduce the risk of AI security problems. The space is made of platforms. Each one have a gate with the portal to the real world behind. Researchers use the portals as the way to send materials.

The experiments are successful at the beginning. However, the intelligent materials evolve in that space. Waves of robot blocks are becoming less controllable, pushing through the gate to the real world.

You as a researcher in this lab, having the access to some experiment, must prevent more blocks getting out of the space before it's too late.

## System Requirements

Operation System: Windows XP/Vista/7 x86

Memory: 1.0G

Video Card: NVIDIA Geforce 9600GT or higher. The game may stall if it runs too lag.

DirectX 9.0c, Make sure you have your graphics card driver installed.

Visual C++ 10 Runtime.

DirectX and Visual C++ Runtime installer are included in the package.

DirectX Release (Version June 2010)	dxRedist\DXSETUP.exe
Visual C++ 10 Runtime	vcredist_x86.exe

In case the game doesn't work, please check if these are installed properly.

## Main Menu:

My Lab: Enter the select experiment screen, and choose one to start game.

Event Logs: Show lab experiment score board. i.e. game highscores.

Credits: View the person behind this game.

Shut Down: Turn off the terminal, and exit to Windows.

## Take Control

The ingame HUD provides everything you need during the experiment.



What type of the incoming enemy blocks are. The number after 'X' is the amount of them.



The mass of the incoming enemy blocks.



The speed of the incoming enemy blocks.

When you move the cursor over your blocks or enemy ones, the details will be shown on the bottom right of the screen.

## Move/Joint Block

Click on the block and drag to anywhere you like.

Drag on ground: it will stick on ground.

Drag on other block: it will joint that one.

**NOTE: If you re-joint an block, the speed will decrease by 10% unless it is very low.**

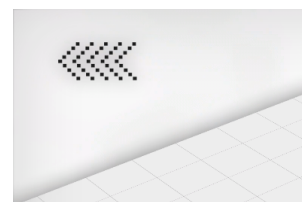
## View Control:

Use the mouse wheel to rotate camera.

Hold right button and move mouse to adjust zoom.

## Exit Experiment:

Click the arrow on the top left of the screen twice.



## Game Basic

In each experiment, your mission is to find a solution that survive all waves. Put different block together to build a strong defense system. Use your creativity.

The blocks you use is from enemies. When an enemy block is killed, it becomes yours sometimes.

### Brief block usage:

Box: Basic supporting of your defense system.

Ball: Cannons, can aim enemies and shot them when it got jointed.

Cylinder & Disc: Rotatable supporting, can rotate objects attached with it.

### Masses

Blocks with large mass have more HP, they are harder to destroy. Large mass balls also shot heavier bullets, which have more damage on targets than lighter ones.

Block with higher mass have different colors.

### Obstacle

The enemy blocks are just going to the gate straight forward, push everything in their way. If you put an obstacle, the enemies push & damaged it until it smashes. However if the obstacle is heavier than the enemies(have more HP), it will become more useful to block enemies in the way.

### Gate:

The enemies are heading the gate in the ground. An enemy entering will result in damaging the lab terminal (i.e. cost one life point of total 10 points).

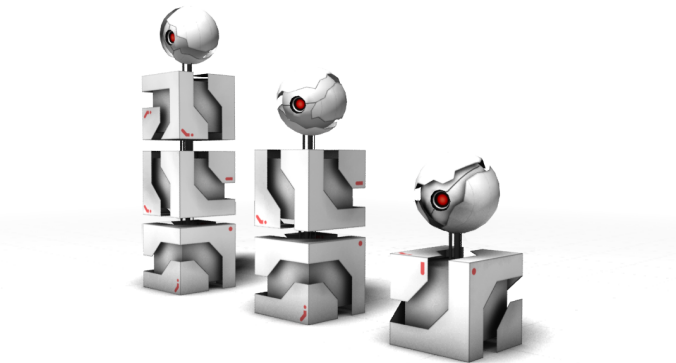
### Balls:

The direct way to damage enemy to use balls. Balls shoot bullets that can damage enemies

efficiently.

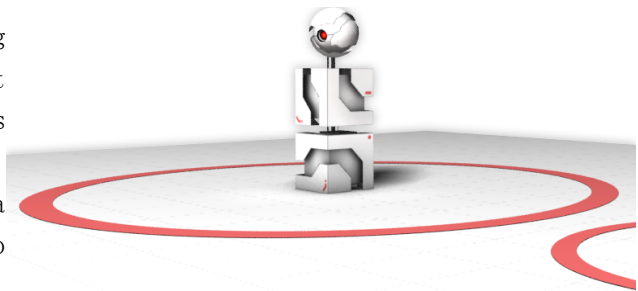
## Height and range

Balls have a certain range at different heights. The higher, the larger area the ball can shoot. However, shooting far targets will lose accuracy & miss sometimes.



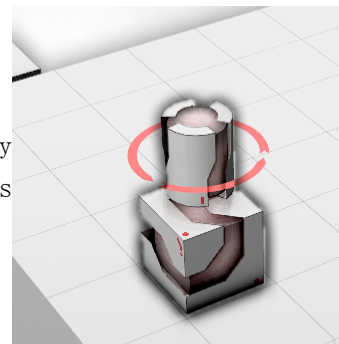
## Direction:

Balls have a yaw angle from -30 deg to 30 deg when aiming. That means it can not aim target that are too far below or above along its axis direction. But only the ones around. So if you build a box based tower, and put a ball on the top, it will not be able to attack the enemy near the foot of the tower. But it can if the ball is on the side of the tower.



## Cylinders & Discs:

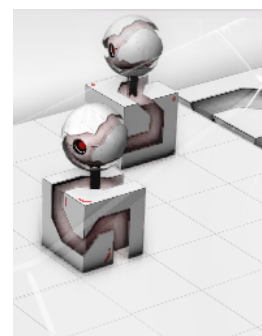
Cylinders & Discs are rotatable parts. They automatically rotate when attached. Cylinders rotate counterclockwise. Discs are the opposite direction.



## Typical Towers

### Basic

A ball on a box. Efficient at beginning.



## Gatling

A cylinder/disc rotates 2 or 4 balls on the top. This kind of tower, with more damage density, can shot almost all direction.

The balls around the top box have higher rate of fire up to 250% to the normal ones. Because the cylinder rotates. The faster the ball moves the higher rate of fire the it has.

