

"You are a magician. You appear to be trapped in a strange place for an unknown reason, and you are surrounded by dangerous monsters. Can you fend off all the enemies using your powerful magic skills and survive until the end? Let's wait and see..."

MagicMotion is a game that is played with your hand - not your hand on a mouse, but your hand doing magic gestures in the air! Here is the instruction manual of MagicMotion:

Environment:

Currently the game only support Windows system. You need to have a Leap Motion controller connected with your computer. You also need to download and install the Leap Motion SDK (Orion Beta) at <https://developer.leapmotion.com/get-started> .

After installing everything, you should see that the Leap Motion icon at the bottom right of the screen turns green. (If not, you may need to manually activate the Leap service from services.msc) Alternatively, if you really do not have a Leap Motion, you can turn on "Simulate with mouse" in game and play with mouse and keyboard.

Launch instructions:

To run the game, simply open MagicMotion.exe. A configuration panel should appear. If you have multiple video cards, please choose to run with dedicated graphics card which provide better performance.

We recommend using full screen and maximum resolution (of your screen) to get the best experience. The default key setting is on a QWERTY keyboard. If you are using an AZERTY keyboard, you can go to input and reset the WSAD movement keys.

Game instructions:

You will first be in a test room. Here you can safely test all your mighty abilities with a dummy, and see the gesture simulation process.

Keyboard control:

Move with WSAD or Arrow keys (by default).

Using Q and E keys to rotate your character (You may not even need it because you will mostly control it by gesture).

Press shift while moving to move slowly.

Press P to pause the game, press again to unpause.

Press R to restart the game (Your calibration data will be kept).

Press Esc to exit the game (Your calibration data will be lost).

Gesture control:

Put your Leap Motion controller horizontally just in front of the keyboard (which is closer to you). When you raise your hand in front of your computer screen, you should see a model of your hand at the bottom left corner of the screen.

You should also see two light dots on the screen.

- The smaller and brighter one is the position of the end of your index finger in the screen space (if you are pointing with your dominant hand)

- The bigger and more transparent one is the center position of the palm of your dominant hand in the screen space.

If you are left handed, you can deselect the "right-handed" toggle at the top left corner to switch your dominant hand to your left hand.

You can recalibrate your hand position in screen space by pressing the "Recalibrate" button at the top left corner, and then following the instructions shown.

You can point to the left or to the right border of the screen to rotate the camera.

You can use four types of gestures to cast spells, they are:

A. Drawing spells.

There are 7 drawing spells. To cast them, point with your finger and draw one of the path shown in the bottom right corner of the screen. The dot is the starting point of the path.

1. Fire ball spell

Move your finger anti-clockwise for one and a half cycle to launch 3 fire balls in front of the player. It is powerful, but beware that the fire ball can hit friendly units.

2. Lightning spell

Draw a lightning pattern from top to bottom to summon a quick lightning strike that hits a random place in front of the player.

The lightning can be attracted to an enemy if the enemy is close enough to the striking position.

3. Light beam spell

Draw a cross pattern (see image) to emit a light beam that deals continuous damage to enemy. You can aim the beam with your finger to the left or to the right.

4. Earth spike spell

Draw a spike-like pattern (see image) to summon earth spikes in a small area, causing area damage. Useful to deal with tight groups of enemy.

You can choose the attack area during the preparation phase by moving your finger in the horizontal plane.

5. Summon helper spell

Draw a star (starting from the top, clockwise) to summon a helper to help fighting the enemy.

The number of helpers summoned is not limited... just for now.

6. Healing spell

Draw a medical cross pattern (see image) to gradually recover player's health.

The spell does not seem too easy to cast, isn't it? I recommend not to cast it when you are in tight battle...

7. Speedup spell

Draw an infinity pattern to gain a temporary speed boost. Useful for running away from the enemy.

(Did you say charging into the enemy?)

B. Hand up gesture

Make your palm facing up and quickly move your hand upwards to cast the shock wave skill (called AntiGravity in code) that sends all enemies close by into the sky.

This spell is useful when you are surrounded by enemies.

C. Grab gesture

Open up your hand and make the palm facing forward, quickly move your hand forward and close the hand into a fist (grab). You will launch a hand projectile that grab an enemy in front of you, Keep your hand closed as a fist, you can control the enemy by moving it around. You can finally throw it wherever you want by opening up your hand.

D. Secondary hand shielding

Give up running and raise your other hand to summon a force shield that can block all incoming attacks.

However, it will also block your attacks... Well, not all of them.

Mouse simulation control:

In case you don't have a Leap Motion, you can turn on "Simulate with mouse" option at the top left corner. In this mode, your mouse simulate the index finger of your dominant hand, so you can cast all the drawing spells with mouse. You can use 1, 2, 3 numeral keys on the main keyboard to cast grab spell, hand up spell, and shielding spell.

When you are done experimenting all the spells, you should click the "Play" button to enter the real battle field. You can return anytime to the test room by pressing the "Test chamber" button at the top right corner. Remember, "R" key to restart...

Build instructions

The Unity project can be downloaded from GitHub:

<https://github.com/supercontact/MagicMotion>

To open the project in Unity, download the newest version of Unity (version 5.4.1f1 or above) and open "Main.unity" or "Test Chamber.unity" in the Assets folder with Unity. You should also have Leap Motion SDK (Orion Beta) installed. Just select "Build & Run" from the menu to build the executable.

Feel free to look at the source code, which is well commented.