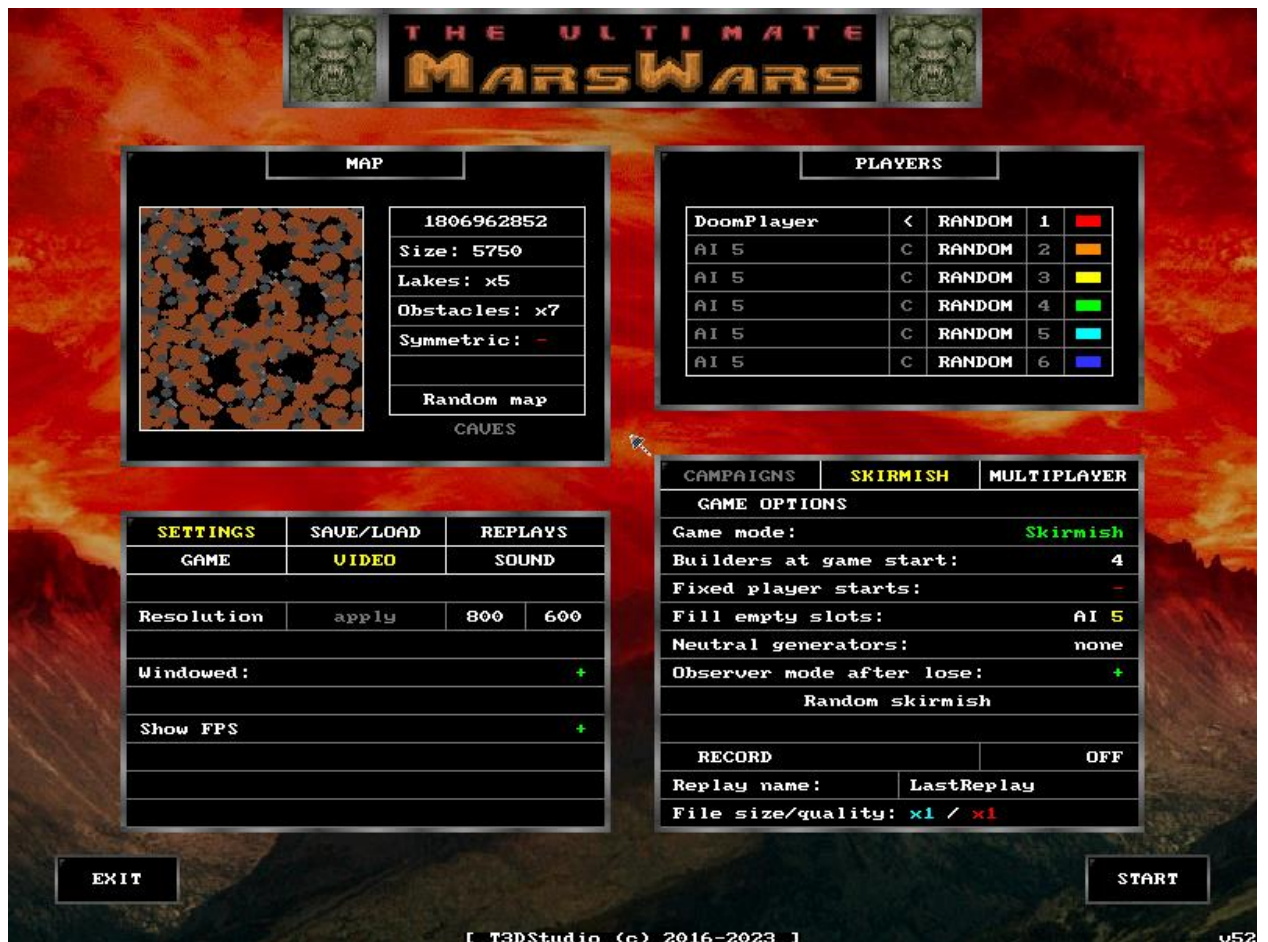


# The Ultimate MarsWars



The Ultimate MarsWars – is a real-time strategy game set in the Doom 2 universe.  
Current version – 52.

## Main menu

### Section MAP

Map settings:

*Ransom seed* (0-4294967295) – determines positions of obstacles and players starts. Right click - generate random value.

*Size* – map size in pixels (value between 2000-8000 with step of 250).

*Lakes* – "lake's" obstacles part.

*Obstacles* – obstacles count multiplier.

*Symmetric* – symmetry option.







*Random map* – set random map settings.

Liquid type in lakes (like **water**, **slime**, **blood**, **mud**, **lava**, etc.) and land texture depend on *Number*.

Liquids do not damage units.

## Section PLAYERS

Players table.

Player name	Status	Side	Team	Color
DoomPlayer	<	RANDOM	1	
AI 7	C	RANDOM	2	
AI 7	C	RANDOM	3	
AI 7	C	RANDOM	4	
AI 7	C	RANDOM	5	
AI 7	C	RANDOM	6	

Fields description:

*Player name:*

- If *Status* = «C» (computer player), left click here to switch AI level;
- If *Status* = «C» (computer player) or « » (empty slot), right click here to move you to this position.

*Status:*

« »(no symbol) – Empty slot;

«C» – Computer player.

For multiplayer game:

«+» or «-» – Player «ready»/«not ready» status;

«?» – Connection problem;

«@» – Host player (server);

«<» – You position.

*Side* – **Hell** or **UAC**. When *Team* = «-» this field will contain «OBSERV.» value.

*Team* – team number [-,1-6]; players that have equal team number will be allies; value «-» mean this player is *observer*.

*Color* – player color; color cannot be changed.

While multiplayer game only host-player (server) can change *Status*, *Team* or *AI level* of computer players on this table.

## Section SETTINGS

Subsection «GAME»:

*COLORED SHADOWS* – switch unit shadows color to player's color;

*SHOW APM* – APM information;

*HEALTH BARS* - unit's health bars draw option;

*RIGHT CLICK* – right click order type;

*SCROLL SPEED* – camera move speed;

*MOUSE SCROLL* – switch camera move by mouse;

*PLAYER NAME* – you name in game; cannot be changed when game started or multiplayer game created;

*UI LANGUAGE* – English or Russian;

*CONTROL PANEL POSITION* - up/down/left/right;

*PLAYERS COLOR* – players color scheme.

Subsection «VIDEO»:

*WINDOW RESOLUTION*;

*WINDOWED* – full screen or windowed;

*SHOW FPS* – FPS information.

Subsection «SOUND» - music and game sounds volume.

## **Section SAVE/LOAD**

Save and load game. You cannot save/load game in multiplayer mode.

## **Section REPLAYS**

Game replays.

## **Section CAMPAINGS**

Campaigns missions. Not available yet.

## **Section SCIRMISH**

Subsections *GAME OPTIONS* and *RECORD*. You can turn off/on game record anytime.

## **Section MULTIPLAYER**

Server/client settings and game chat.

## **Dedicated server**

*Dedicated server* – special game version, which does not loading any game resources and start working immediately as server.

To start *dedicated server*, run it with follow parameters:

MarsWars\_ded.exe [X]

where X - UDP port (optional argument, default value - 10666).

After connect to dedicated server, you can manage game settings using text commands in game chat.

Use *-h* or *-help* command to show all exist chat-commands;

Game automatically start when all player ready (Field *Ready* = «+»).

After 10 seconds after last player disconnect server reset game.

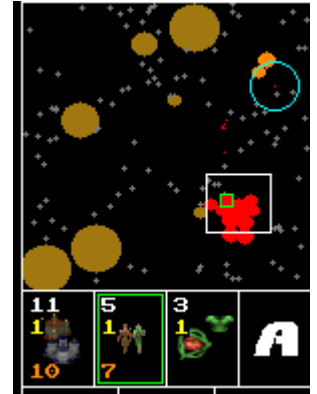
# Game mechanics

## Game control panel

Game minimap:

Minimap indicator types:

- **Green** pulse circle – unit ready;
- **Green** pulse square – construction complete;
- **Yellow** pulse square - upgrade complete;
- **Aqua** pulse circle - unit promoted;
- **Red** pulse circle – unit is under attack;
- **Red** pulse square – base is under attack.



Tabs:

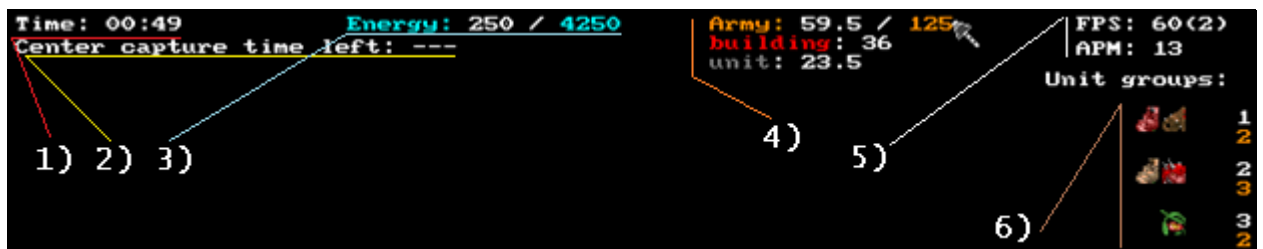
- Buildings;
- Units;
- Upgrades/researches;
- Controls.

Numbers on icons:

- Green** – total count of selected unit/buildings;
- Yellow** – count of productions;
- Orange** or **gray** - total count of this type of building/unit or research level;
- Purple** - number units of this type in selected transport(s);
- White** - time to production end;
- Aqua** – ability reloading time;



## Other UI



- 1) **Time** – game time;
- 2) Game mode specific information;
- 3) **Energy** section – **free energy level** / **maximum energy level**;
- 4) **Army** section – limit of **all units** (units + buildings); put cursor here to see limits to each category;
- 5) FPS/APM info;
- 6) Unit groups info.

## Hint format

```
Imp (R,200,1,28)
[T1,unit,biological,light,ground]

Arming/Abilities: ranged attack, targets: [alive] except [Imp], damage: x1.5 [unit,biological,heavy]; melee attack, targets: [Imp].

Produced by: Demon`s Gate
```

Name (HOTKEY,energy,limit use/upgrade max level,PRODUCTION TIME,\*)

[Unit categories]

Description

Requirements: (if exists)

Produced by: (only for units/buildings) which buildings can produce this unit/building;

\* - (only for upgrades) mean it possible to produce this upgrade in many buildings at time.

## Unit selection, orders and hotkeys

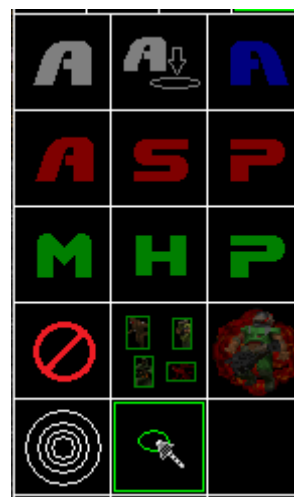
Use left mouse button to select unit and right button - to command it.

You can add units to selection with «Shift» button. Use double left click on unit or single click with «Ctrl» key to select all of its kind on screen.

To bind units to hotkey-group - select it and press «Ctrl»+«1..9». To add units to group – select it and press «Alt»+«1..9». Use double group hotkey to move camera to nearest units in this group. «F2» hotkey will select all battle units on map. Double «F2» hotkey will to move camera to nearest battle unit. For buildings, which can produce units, you can set rally-point using mouse right click.

Orders:

- Mouse right click – «Move» or «Move»+«Attack» depend on your choice in settings;
- «Special ability» (Q) – do special ability (if unit have it, see unit's hint).
- «Special ability at point» (W) – do special ability at specified location (if unit have it, see unit's hint).
- «Rebuild/Advance» (E) – start rebuild/advance (if unit have this mechanic, see unit hint).
- «Move» (A), «Stay» (S), «Patrol» (D), attack enemies;
- «Move» (Z), «Stay» (X), «Patrol» (C), ignore enemies;
- «Cancel production» (Ctrl+C) – abort current production;
- «Select all battle units» (F2);
- «Destroy» (Delete) – destroy selected units;
- «Alarm mark» (F5) – put a mark for allies;
- «Right click action» (Ctrl+Space) – switch right click order.



«TAB» – switching game control panel tabs;

Tab «Buildings»: R T Y F G H V B N U I O J K L – buildings;

Tab «Units»: R T Y F G H V B N U I O J K L and Ctrl + R T Y F G H V B N – units;

Tab «Upgrades/researches»:

R T Y F G H V B N U I O J K L and Ctrl + R T Y F G H V B N – upgrades;

- «Alt» - draw colored rectangles and health bars above units;
- «Pause/Break» – pause/continue game in network game.
- «PrtScr» - make screenshot.
- «Shift+Enter» - all players chat;
- «Ctrl+Enter» - allies chat.

## Moving camera

To move camera, use arrows buttons on keyboard or middle mouse button. In addition, you can move camera mouse cursor - move it to screen border (this feature must be turn on in **SETTINGS** section in menu). You can change camera scroll speed in **SETTINGS** section in menu.

## Build base, units and upgrades production

To build a base you must have at least one builder. Press on building's icon on control panel to select which building type you need. Game start draw circle around mouse cursor. Radius of circle is radius of building. If circle is **red** – you need more space, if **blue** - too far from builder, if **green** - you can start build here. Use right click to cancel selection. If building's icons are disabled, that mean: there is no one builder; number of buildings of this type reached limit; not enough energy or not satisfied requirements.

Unit's icons enabled when there is at least one building that can produce it, army size less than limit, number of this unit less than maximum, enough energy and requirements are satisfied. When you click on unit icon while no one **Hell Gate/UAC Military unit** is selected - order to start produce unit will send to any idle building. If any **HG/MU** is selected - order will send to him.

Upgrades icons enabled when there at least one **Hell Pools** or **UAC Weapon Factory**, enough energy, upgrade research level less than maximum and requirements are satisfied. Most upgrade can be researched in one building at time.

## Resources and army limit

There is no gold/wood/minerals/etc. like in other RTS games. There is energy level that means how many produce units/build buildings/research upgrades at one time you can. Maximum unit limit (all units + all buildings!) for each player - 125.

### Game options

GAME OPTIONS	
Game mode:	<b>Skirmish</b>
Builders at game start:	<b>7</b>
Fixed player starts:	<b>-</b>
Fill empty slots:	<b>AI 7</b>
Neutral generators:	<b>none</b>
Observer mode after lose:	<b>+</b>
Random skirmish	

### Game mode:

**Skirmish** - default mode - you must destroy all enemy players;

3x3 – **red+orange+yellow** vs **green+aqua+blue** players.

2x2x2 – **red+orange** vs **yellow+green** vs **aqua+blue** players.

**Capturing points** - there is 4 points on map that needs to capture. To win the game you must capture all of them.

**Invasion** - players must survive for 20 waves of powerful monsters.

**King of the Hill** – to win the game, players must capture and hold for 1-minute central area of the map;

**Royal Battle** – there is circle of death that start collapse from map borders to it center; any units outside the circle die.

Builders at game start:

Fixed player starts: if “+” game show you players start positions on map.

Fill empty slots: if set, empty player slots will filled with AI players;

Neutral generators:

Random skirmish: set random map and random game settings.

## Units and buildings

### Base things for units and buildings

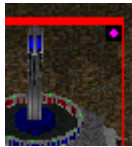
**Detector** - unit/building that can detect invisible units.

Unfinished buildings have no armor and take 100% damage. If maximum energy level = 0 - all your buildings will explode. In non-campaign games, if player loss all their builders – all his units revealed on map.

A armor will decrease damage.



Invulnerable unit have white aura:



Unit-detector have this icon:

Units categories:

Mechanical:

- *buildings*;

- *mechs*;

Biological:

- *light*;

- *medium*;

- *massive*;

- *Ground*;

- *Air (soaring and fly)*;

**HPS** – hits per second.

**SDR** – splash damage range.









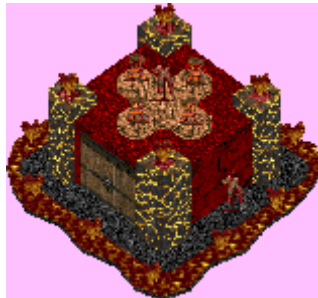



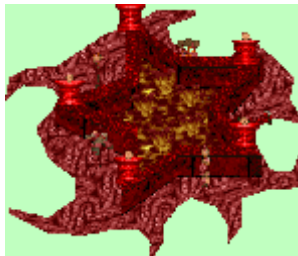

# BUILDINGS

## HELL



Sprite	Icon / Hot key	Description														
	  <b>R</b>	<b>Hell Keep</b>  <table><tr><td><b>Hits</b></td><td>3000</td></tr><tr><td><b>Size</b></td><td>66</td></tr><tr><td><b>Building time</b></td><td>83</td></tr><tr><td><b>Base sight radius</b></td><td>280</td></tr><tr><td><b>Max count</b></td><td>Unlimited</td></tr><tr><td><b>Energy required</b></td><td>8</td></tr><tr><td><b>Energy provided</b></td><td>6</td></tr></table> <p>Main building. Allows you to build base.</p> <p><b>Possible upgrades:</b></p> <ul style="list-style-type: none"><li>- <b>Hell Keep teleportation</b> – allow <b>HK</b> to teleport to any map place;</li><li>- <b>Decay Aura</b> – <b>HK</b> start damage enemy units around;</li><li>- <b>Sight radius upgrade</b>;</li><li>- <b>Free teleportation</b> – allow <b>HK</b> teleporting on map obstacles;</li><li>- <b>Built-in Hell Symbol</b> – increase provided energy level.</li></ul>	<b>Hits</b>	3000	<b>Size</b>	66	<b>Building time</b>	83	<b>Base sight radius</b>	280	<b>Max count</b>	Unlimited	<b>Energy required</b>	8	<b>Energy provided</b>	6
<b>Hits</b>	3000															
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<b>Energy required</b>	8															
<b>Energy provided</b>	6															
	  <b>T</b>	<b>Hell Gate</b>  <table><tr><td><b>Hits</b></td><td>1500</td></tr><tr><td><b>Size</b></td><td>60</td></tr><tr><td><b>Building time</b></td><td>41</td></tr><tr><td><b>Sight radius</b></td><td>200</td></tr><tr><td><b>Max count</b></td><td>Unlimited</td></tr><tr><td><b>Energy required</b></td><td>4</td></tr></table> <p>Produce units.</p>	<b>Hits</b>	1500	<b>Size</b>	60	<b>Building time</b>	41	<b>Sight radius</b>	200	<b>Max count</b>	Unlimited	<b>Energy required</b>	4		
<b>Hits</b>	1500															
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<b>Building time</b>	41															
<b>Sight radius</b>	200															
<b>Max count</b>	Unlimited															
<b>Energy required</b>	4															
	  <b>Y</b>	<b>Hell Symbol</b>  <table><tr><td><b>Hits</b></td><td>200</td></tr><tr><td><b>Size</b></td><td>24</td></tr><tr><td><b>Building time</b></td><td>10</td></tr><tr><td><b>Sight radius</b></td><td>200</td></tr><tr><td><b>Max count</b></td><td>Unlimited</td></tr><tr><td><b>Energy required</b></td><td>1</td></tr><tr><td><b>Energy provided</b></td><td>1</td></tr></table> <p>Provide energy.</p> <p><b>Possible upgrades:</b></p> <ul style="list-style-type: none"><li>- <b>Short distance teleportation</b>;</li></ul>	<b>Hits</b>	200	<b>Size</b>	24	<b>Building time</b>	10	<b>Sight radius</b>	200	<b>Max count</b>	Unlimited	<b>Energy required</b>	1	<b>Energy provided</b>	1
<b>Hits</b>	200															
<b>Size</b>	24															
<b>Building time</b>	10															
<b>Sight radius</b>	200															
<b>Max count</b>	Unlimited															
<b>Energy required</b>	1															
<b>Energy provided</b>	1															



	  <b>F</b>	<b>Hell Pool</b>  <table><tr><td>Hits</td><td>1000</td></tr><tr><td>Size</td><td>53</td></tr><tr><td>Building time</td><td>41</td></tr><tr><td>Sight radius</td><td>200</td></tr><tr><td>Max count</td><td>Unlimited</td></tr><tr><td>Energy required</td><td>6</td></tr></table> Research upgrades.	Hits	1000	Size	53	Building time	41	Sight radius	200	Max count	Unlimited	Energy required	6
Hits	1000													
Size	53													
Building time	41													
Sight radius	200													
Max count	Unlimited													
Energy required	6													
	  <b>G</b>	<b>Hell Tower</b>  <table><tr><td>Hits</td><td>700</td></tr><tr><td>Size</td><td>21</td></tr><tr><td>Building time</td><td>20</td></tr><tr><td>Base sight/attack radius</td><td>250</td></tr><tr><td>Max count</td><td>Unlimited</td></tr><tr><td>Energy required</td><td>2</td></tr></table> Defense structure. Attacking all units with <b>Revenant</b> fireballs, but <b>Revenants</b> - with <b>Cacodemon</b> fireballs.  <b>Possible upgrades:</b> - Range attack upgrade; - Attack/sight radius upgrade; - Short distance teleportation.	Hits	700	Size	21	Building time	20	Base sight/attack radius	250	Max count	Unlimited	Energy required	2
Hits	700													
Size	21													
Building time	20													
Base sight/attack radius	250													
Max count	Unlimited													
Energy required	2													
	  <b>H</b>	<b>Hell Teleport</b>  <table><tr><td>Hits</td><td>500</td></tr><tr><td>Size</td><td>28</td></tr><tr><td>Building time</td><td>31</td></tr><tr><td>Sight radius</td><td>200</td></tr><tr><td>Max count</td><td>1</td></tr><tr><td>Energy required</td><td>4</td></tr></table> Teleport units to any point: select <b>Hell Teleport</b> and do right click to set destination point; select units and do right click on <b>Hell Teleport</b> or it icon. Reload time after teleportation depend from unit power. Can teleport allies units.  <b>Possible upgrades:</b> - <b>Teleport upgrade</b> – decrease reload time; - <b>Reverse teleport</b> - units can teleport back to <b>Hell Teleport</b> .	Hits	500	Size	28	Building time	31	Sight radius	200	Max count	1	Energy required	4
Hits	500													
Size	28													
Building time	31													
Sight radius	200													
Max count	1													
Energy required	4													

	  <b>V</b>	<b>Hell Monastery</b>  <table><tr><td><b>Hits</b></td><td>1000</td></tr><tr><td><b>Size</b></td><td>65</td></tr><tr><td><b>Building time</b></td><td>100</td></tr><tr><td><b>Sight radius</b></td><td>200</td></tr><tr><td><b>Max count</b></td><td>Unlimited</td></tr><tr><td><b>Energy required</b></td><td>10</td></tr><tr><td><b>Requirements</b></td><td><i>Hell Pool</i> building</td></tr></table> Can advance units.  <b>Possible upgrades:</b> - <b>Hell Power</b> – charges for units advancing; There is 2 methods to make advance any unit: 1) Select <b>Hell Monastery</b> and do right click on unit; 2) Select unit and do right click to <b>Hell Monastery</b> building or it icon on control panel;	<b>Hits</b>	1000	<b>Size</b>	65	<b>Building time</b>	100	<b>Sight radius</b>	200	<b>Max count</b>	Unlimited	<b>Energy required</b>	10	<b>Requirements</b>	<i>Hell Pool</i> building
<b>Hits</b>	1000															
<b>Size</b>	65															
<b>Building time</b>	100															
<b>Sight radius</b>	200															
<b>Max count</b>	Unlimited															
<b>Energy required</b>	10															
<b>Requirements</b>	<i>Hell Pool</i> building															
	  <b>B</b>	<b>Hell Totem</b>  <table><tr><td><b>Hits</b></td><td>600</td></tr><tr><td><b>Size</b></td><td>21</td></tr><tr><td><b>Building time</b></td><td>25</td></tr><tr><td><b>Base sight/attack radius</b></td><td>250</td></tr><tr><td><b>Max count</b></td><td>Unlimited</td></tr><tr><td><b>Energy required</b></td><td>3</td></tr><tr><td><b>Requirements</b></td><td><i>Hell Monastery</i> building <i>Ancient Evil</i> upgrade</td></tr></table> Advanced defense structure. Attacking like <b>ArchVile</b> unit.  <b>Possible upgrades:</b> - <b>Range attack upgrade</b> ; - <b>Attack/sight radius upgrade</b> ; - <b>Short distance teleportation</b> ; - <b>Invisibility</b> .	<b>Hits</b>	600	<b>Size</b>	21	<b>Building time</b>	25	<b>Base sight/attack radius</b>	250	<b>Max count</b>	Unlimited	<b>Energy required</b>	3	<b>Requirements</b>	<i>Hell Monastery</i> building <i>Ancient Evil</i> upgrade
<b>Hits</b>	600															
<b>Size</b>	21															
<b>Building time</b>	25															
<b>Base sight/attack radius</b>	250															
<b>Max count</b>	Unlimited															
<b>Energy required</b>	3															
<b>Requirements</b>	<i>Hell Monastery</i> building <i>Ancient Evil</i> upgrade															
	  <b>N</b>	<b>Hell Altar</b>  <table><tr><td><b>Hits</b></td><td>750</td></tr><tr><td><b>Size</b></td><td>50</td></tr><tr><td><b>Building time</b></td><td>31</td></tr><tr><td><b>Sight radius</b></td><td>200</td></tr><tr><td><b>Max count</b></td><td>1</td></tr><tr><td><b>Energy required</b></td><td>4</td></tr><tr><td><b>Requirements</b></td><td><i>Hell Monastery</i> building <i>Ancient Evil</i> upgrade</td></tr></table> Cast <b>Invulnerability</b> on units.  <b>Possible upgrades:</b> - <b>Invulnerability</b> - charges for ability.	<b>Hits</b>	750	<b>Size</b>	50	<b>Building time</b>	31	<b>Sight radius</b>	200	<b>Max count</b>	1	<b>Energy required</b>	4	<b>Requirements</b>	<i>Hell Monastery</i> building <i>Ancient Evil</i> upgrade
<b>Hits</b>	750															
<b>Size</b>	50															
<b>Building time</b>	31															
<b>Sight radius</b>	200															
<b>Max count</b>	1															
<b>Energy required</b>	4															
<b>Requirements</b>	<i>Hell Monastery</i> building <i>Ancient Evil</i> upgrade															

## SPECIAL BUILDINGS

	<p><b>Hell Eye</b></p> <p><b>Base sight radius</b>      250  <b>Max count</b>              Unlimited  <b>Requirements</b>          <i>Lost Soul</i> unit                                       <i>Hell Eye</i> upgrade</p> <p>Detector. Summoned by a <b>Lost Soul</b>. Live time - 2 minutes. Dies after single hit.</p> <p><b>Possible upgrades:</b>  - <b>Hell Eye</b> – increase sight radius;  - <b>Invisibility</b>;</p>
	<p><b>Hell Military Unit</b></p> <p><b>Hits</b>                        1500  <b>Size</b>                        70  <b>Sight radius</b>            200  <b>Max count</b>              Unlimited  <b>Requirements</b>          advanced <i>Lost Soul</i> unit                                       <i>UAC Military Unit</i> building</p> <p>Produce <b>zombies</b> and <b>Hell</b> units.</p>





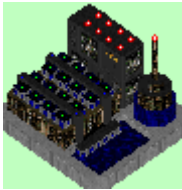
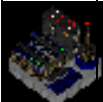
**Possible upgrades for all Hell buildings:**





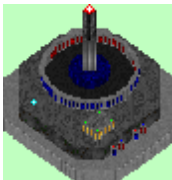

- **Buildings armor upgrade**;
- **Building restoration** – restoration for damaged buildings.





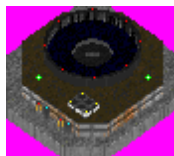

In **UDOOM** game mode **Building restoration** ability working without upgrade.



**Hell** can't build **Hell Totem** and **Hell Altar** in **UDOOM** mode.

## UAC



Sprite	Icon / Hot key	Description
		<b>UAC Command Center</b>  <b>Hits</b> 4000 <b>Size</b> 66 <b>Building time</b> 80 <b>Base sight radius</b> 280 <b>Max count</b> Unlimited <b>Energy required</b> 8 <b>Energy provided</b> 6  Main building. Allows you to build base.
	<b>R</b>	<b>Possible upgrades:</b>  - <b>Command Center flight</b> - <b>Command Center</b> gains ability to fly (use «Action» order to fly up or land <b>CC</b> ); - <b>Sight radius upgrade</b> ; this upgrade have effect on <b>CC</b> only when it on ground; - <b>Command Center Turret</b> – <b>CC</b> can attack when it flying (attacking like <b>Major</b> , 2 HPS, 250 range, only <u>ground</u> units); - <b>Free placement</b> – <b>CC</b> can land to obstacles.
		<b>UAC Military Unit</b>  <b>Hits</b> 1700 <b>Size</b> 66 <b>Building time</b> 40 <b>Sight radius</b> 200 <b>Max count</b> Unlimited <b>Energy required</b> 4  Produce units.
		<b>UAC Generator</b>  <b>Hits</b> 400 <b>Size</b> 42 <b>Building time</b> 20 <b>Sight radius</b> 200 <b>Max count</b> Unlimited <b>Energy required</b> 2 <b>Energy provided</b> 2  Provide energy.

	  <b>F</b>	<b>UAC Weapon Factory</b>  <table><tr><td><b>Hits</b></td><td>1700</td></tr><tr><td><b>Size</b></td><td>62</td></tr><tr><td><b>Building time</b></td><td>40</td></tr><tr><td><b>Sight radius</b></td><td>200</td></tr><tr><td><b>Max count</b></td><td>Unlimited</td></tr><tr><td><b>Energy required</b></td><td>6</td></tr></table> Research upgrades.	<b>Hits</b>	1700	<b>Size</b>	62	<b>Building time</b>	40	<b>Sight radius</b>	200	<b>Max count</b>	Unlimited	<b>Energy required</b>	6		
<b>Hits</b>	1700															
<b>Size</b>	62															
<b>Building time</b>	40															
<b>Sight radius</b>	200															
<b>Max count</b>	Unlimited															
<b>Energy required</b>	6															
	  <b>G</b>	<b>UAC Chaingun Turret</b>  <table><tr><td><b>Hits</b></td><td>400</td></tr><tr><td><b>Size</b></td><td>17</td></tr><tr><td><b>Building time</b></td><td>15</td></tr><tr><td><b>Base sight/attack radius</b></td><td>250</td></tr><tr><td><b>Max count</b></td><td>Unlimited</td></tr><tr><td><b>Energy required</b></td><td>2</td></tr><tr><td><b>Attack</b></td><td>12 4 HPS</td></tr></table> Defense structure. Attacking like <b>Mastermind</b> unit.  <b>Possible upgrades:</b> - Range attack upgrade; - Attack/sight radius upgrade; - Turrets armor;	<b>Hits</b>	400	<b>Size</b>	17	<b>Building time</b>	15	<b>Base sight/attack radius</b>	250	<b>Max count</b>	Unlimited	<b>Energy required</b>	2	<b>Attack</b>	12 4 HPS
<b>Hits</b>	400															
<b>Size</b>	17															
<b>Building time</b>	15															
<b>Base sight/attack radius</b>	250															
<b>Max count</b>	Unlimited															
<b>Energy required</b>	2															
<b>Attack</b>	12 4 HPS															
	  <b>H</b>	<b>UAC Radar</b>  <table><tr><td><b>Hits</b></td><td>500</td></tr><tr><td><b>Size</b></td><td>35</td></tr><tr><td><b>Building time</b></td><td>31</td></tr><tr><td><b>Base sight radius</b></td><td>200</td></tr><tr><td><b>Max count</b></td><td>1</td></tr><tr><td><b>Energy required</b></td><td>2</td></tr></table> Reveals map. To reveal any map area – select <b>Radar</b> and do right click on this area.  <b>Possible upgrades:</b> - Detectors; - Radar upgrade - Increase radar scouting time and radius.	<b>Hits</b>	500	<b>Size</b>	35	<b>Building time</b>	31	<b>Base sight radius</b>	200	<b>Max count</b>	1	<b>Energy required</b>	2		
<b>Hits</b>	500															
<b>Size</b>	35															
<b>Building time</b>	31															
<b>Base sight radius</b>	200															
<b>Max count</b>	1															
<b>Energy required</b>	2															

	  <b>V</b>	<b>UAC Tech Center</b>  <table><tr><td><b>Hits</b></td><td>1700</td></tr><tr><td><b>Size</b></td><td>62</td></tr><tr><td><b>Building time</b></td><td>94</td></tr><tr><td><b>Sight radius</b></td><td>200</td></tr><tr><td><b>Max count</b></td><td>1</td></tr><tr><td><b>Energy required</b></td><td>10</td></tr><tr><td><b>Requirements</b></td><td><i>UAC Weapon Factory</i> building</td></tr></table> Can advance units. <b>Possible upgrades:</b> - <b>Advanced armory</b> - <b>Tech Center</b> will be able to upgrade units; - <b>Fast rearmament</b> - decrease <b>Tech Center</b> upgrade reloads time. To advance unit, select unit and do right click on <b>Tech Center</b> or it icon on control panel.	<b>Hits</b>	1700	<b>Size</b>	62	<b>Building time</b>	94	<b>Sight radius</b>	200	<b>Max count</b>	1	<b>Energy required</b>	10	<b>Requirements</b>	<i>UAC Weapon Factory</i> building
<b>Hits</b>	1700															
<b>Size</b>	62															
<b>Building time</b>	94															
<b>Sight radius</b>	200															
<b>Max count</b>	1															
<b>Energy required</b>	10															
<b>Requirements</b>	<i>UAC Weapon Factory</i> building															
	  <b>B</b>	<b>UAC Plasma Turret</b>  <table><tr><td><b>Hits</b></td><td>400</td></tr><tr><td><b>Size</b></td><td>17</td></tr><tr><td><b>Building time</b></td><td>20</td></tr><tr><td><b>Base sight/attack radius</b></td><td>250</td></tr><tr><td><b>Max count</b></td><td>Unlimited</td></tr><tr><td><b>Energy required</b></td><td>2</td></tr><tr><td><b>Requirements</b></td><td><i>UAC Tech Center</i> building</td></tr></table> Defense structure. Attacking like <b>Major</b> unit. <b>Possible upgrades:</b> - <b>Range attack upgrade;</b> - <b>Attack/sight radius upgrade;</b> - <b>Turrets armor;</b>	<b>Hits</b>	400	<b>Size</b>	17	<b>Building time</b>	20	<b>Base sight/attack radius</b>	250	<b>Max count</b>	Unlimited	<b>Energy required</b>	2	<b>Requirements</b>	<i>UAC Tech Center</i> building
<b>Hits</b>	400															
<b>Size</b>	17															
<b>Building time</b>	20															
<b>Base sight/attack radius</b>	250															
<b>Max count</b>	Unlimited															
<b>Energy required</b>	2															
<b>Requirements</b>	<i>UAC Tech Center</i> building															
	  <b>N</b>	<b>UAC Rocket Launcher Station</b>  <table><tr><td><b>Hits</b></td><td>500</td></tr><tr><td><b>Size</b></td><td>40</td></tr><tr><td><b>Building time</b></td><td>31</td></tr><tr><td><b>Sight radius</b></td><td>200</td></tr><tr><td><b>Max count</b></td><td>1</td></tr><tr><td><b>Energy required</b></td><td>4</td></tr><tr><td><b>Requirements</b></td><td><i>UAC Tech Center</i> building</td></tr></table> Provide a missile strike. Missile strike requires " <b>Missile strike</b> " research. Missile have 300 damage and 150 <b>SDR</b> . Deal x0,05 damage to <u>light</u> units, x2 to <u>buildings</u> and x0,75 to <u>air</u> .	<b>Hits</b>	500	<b>Size</b>	40	<b>Building time</b>	31	<b>Sight radius</b>	200	<b>Max count</b>	1	<b>Energy required</b>	4	<b>Requirements</b>	<i>UAC Tech Center</i> building
<b>Hits</b>	500															
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<b>Building time</b>	31															
<b>Sight radius</b>	200															
<b>Max count</b>	1															
<b>Energy required</b>	4															
<b>Requirements</b>	<i>UAC Tech Center</i> building															

		<b>UAC Rocket Turret</b>
		<b>Hits</b> 500 <b>Size</b> 17 <b>Building time</b> 31 <b>Base sight/attack radius</b> 250 common 190 against <u>air</u> <b>Max count</b> Unlimited <b>Energy required</b> 4 <b>Requirements</b> <i>UAC Tech Center</i> building <i>Rocket turrets</i> upgrade  <b>Ctrl</b> + <b>T</b>  Defense structure. Attacking like <b>Cyberdemon</b> unit with 0,6 HPS.  <b>Possible upgrades:</b> - Range attack upgrade; - Attack/sight radius upgrade; - Turrets armor;

## SPECIAL BUILDINGS

		<b>Mine</b>
		<b>Hits</b> 1 <b>Size</b> 5 <b>Base sight radius</b> 100 <b>Max count</b> Unlimited <b>Requirements</b> advanced <i>Engineer</i> unit  Set by advanced <b>UAC Engineers</b> .  <b>Possible upgrades:</b> - <b>Detectors</b> ; - <b>Mine-sensor</b> – mine can switch to sensor mode that provide 300 sight ranges and not explode under enemy unit (use «Action» order to switch mode).

**Possible upgrades for all UAC buildings:**

- Buildings armor upgrade.





UAC can't build **UAC Rocket Launcher** and **UAC Rocket Turret** in **UDOOM** mode.













# UNITS







## HELL UNITS





All **Hell** units have «*pain state*» - state when it stun and cannot attack and move. «*Pain state*» happens every X hit from most attacks or more often from other.

Sprite	Icon / hot key	Description																		
	  <b>R</b>	<b>Lost Soul</b> <table><tr><td><b>Class</b></td><td><i>soaring, light</i></td></tr><tr><td><b>Hits</b></td><td>90</td></tr><tr><td><b>Production time</b></td><td>8</td></tr><tr><td><b>Energy required</b></td><td>1</td></tr><tr><td><b>Speed</b></td><td>23</td></tr><tr><td><b>Size</b></td><td>10</td></tr><tr><td><b>Sight/attack radius</b></td><td>250</td></tr><tr><td><b>Pain state</b></td><td>every 3 hit</td></tr><tr><td><b>Attack</b></td><td>10 1 HPS</td></tr></table> <p>Fast air melee unit. Deal x0,5 damage to <u>ground</u> units and x0,25 to <u>mechanical</u> units. Advanced <b>Lost Soul</b> can capture <b>UAC infantry/UAC Military Unit</b> and transform it to <b>zombies/Hell Military Unit</b> (UAC <b>Military Unit</b> must have &lt; 2/3 hits).</p> <p><b>Possible upgrades:</b></p> <ul style="list-style-type: none"><li>- <b>Melee attack upgrade;</b></li><li>- <b>Hell Eye</b> – <b>Lost Soul</b> can transform to <b>Hell Eye</b> (use «Action» order);</li></ul>	<b>Class</b>	<i>soaring, light</i>	<b>Hits</b>	90	<b>Production time</b>	8	<b>Energy required</b>	1	<b>Speed</b>	23	<b>Size</b>	10	<b>Sight/attack radius</b>	250	<b>Pain state</b>	every 3 hit	<b>Attack</b>	10 1 HPS
<b>Class</b>	<i>soaring, light</i>																			
<b>Hits</b>	90																			
<b>Production time</b>	8																			
<b>Energy required</b>	1																			
<b>Speed</b>	23																			
<b>Size</b>	10																			
<b>Sight/attack radius</b>	250																			
<b>Pain state</b>	every 3 hit																			
<b>Attack</b>	10 1 HPS																			
	  <b>T</b>	<b>Imp</b> <table><tr><td><b>Class</b></td><td><i>ground, light</i></td></tr><tr><td><b>Hits</b></td><td>70</td></tr><tr><td><b>Production time</b></td><td>5</td></tr><tr><td><b>Energy required</b></td><td>1</td></tr><tr><td><b>Speed</b></td><td>9</td></tr><tr><td><b>Size</b></td><td>12</td></tr><tr><td><b>Sight/attack radius</b></td><td>250</td></tr><tr><td><b>Pain state</b></td><td>every 3 hit</td></tr><tr><td><b>Attack</b></td><td>12 1 HPS</td></tr></table> <p>Weak ground unit with ranged attack. Deal x0,5 damage to <u>air</u> and <u>mechanical</u> units. Attacking other <b>Imps</b> only with melee attack (damage same as ranged attack). Advanced <b>Imp</b> has 2 HPS.</p> <p><b>Possible upgrades:</b></p> <ul style="list-style-type: none"><li>- <b>Firepower</b> – increase missiles speed.</li></ul>	<b>Class</b>	<i>ground, light</i>	<b>Hits</b>	70	<b>Production time</b>	5	<b>Energy required</b>	1	<b>Speed</b>	9	<b>Size</b>	12	<b>Sight/attack radius</b>	250	<b>Pain state</b>	every 3 hit	<b>Attack</b>	12 1 HPS
<b>Class</b>	<i>ground, light</i>																			
<b>Hits</b>	70																			
<b>Production time</b>	5																			
<b>Energy required</b>	1																			
<b>Speed</b>	9																			
<b>Size</b>	12																			
<b>Sight/attack radius</b>	250																			
<b>Pain state</b>	every 3 hit																			
<b>Attack</b>	12 1 HPS																			


	  Y	<b>Demon</b>  <div> <div>Class</div> <div>ground, medium</div> </div> <div> <div>Hits</div> <div>150</div> </div> <div> <div>Production time</div> <div>8</div> </div> <div> <div>Energy required</div> <div>2</div> </div> <div> <div>Speed</div> <div>15</div> </div> <div> <div>Size</div> <div>14</div> </div> <div> <div>Sight/attack radius</div> <div>200</div> </div> <div> <div>Pain state</div> <div>every 8 hit</div> </div> <div> <div>Attack</div> <div>40 1 HPS</div> </div> <div> <div>Base armor</div> <div>2</div> </div> <p>Fast ground unit with melee attack. Cannot attack <u>air</u> units (except Lost Soul). Advanced <b>Demon</b> has invisibility.</p> <p><b>Possible upgrades:</b></p> <ul style="list-style-type: none"> <li>- <b>Demon's anger</b> – increase Demon's movement speed and attack.</li> </ul>
	  F	<b>Cacodemon</b>  <div> <div>Class</div> <div>air, medium</div> </div> <div> <div>Hits</div> <div>225</div> </div> <div> <div>Production time</div> <div>20</div> </div> <div> <div>Energy required</div> <div>2</div> </div> <div> <div>Speed</div> <div>9</div> </div> <div> <div>Size</div> <div>14</div> </div> <div> <div>Base sight/attack radius</div> <div>250</div> </div> <div> <div>Pain state</div> <div>every 6 hit</div> </div> <div> <div>Attack</div> <div>25 0,8 HPS</div> </div> <div> <div>Base armor</div> <div>2</div> </div> <p>Air unit with ranged attack. Deal x1,25 damage to <i>light</i> units, 0,75 to <i>air</i> and <i>massive</i> units, x0,5 to <i>mechanical</i> units. Attacking other <b>Cacodemons</b> only with melee attack (damage same as ranged attack). Advanced <b>Cacodemon</b> has 275 attack and sight ranges.</p> <p><b>Possible upgrades:</b></p> <ul style="list-style-type: none"> <li>- <b>Firepower</b> – increase missiles speed.</li> </ul>
	  G	<b>Baron of Hell / Hell Knight</b>  <div> <div>Class</div> <div>ground, medium</div> </div> <div> <div>Hits</div> <div>350</div> </div> <div> <div>Production time</div> <div>40</div> </div> <div> <div>Energy required</div> <div>4</div> </div> <div> <div>Speed</div> <div>9</div> </div> <div> <div>Size</div> <div>14</div> </div> <div> <div>Sight/attack radius</div> <div>250 common 190 against <u>air</u></div> </div> <div> <div>Pain state</div> <div>every 8 hit</div> </div> <div> <div>Attack</div> <div>50 0,8 HPS</div> </div> <div> <div>Base armor</div> <div>3</div> </div> <p>Heavy ground unit with ranged attack. Attacking other <b>Barons/Knights</b> only with melee attack (damage same as ranged attack). Deal x0,5</p>

		<p>damage to <u>light</u> units, x0,75 to <u>air</u> and <u>mechanical</u> units. <b>Baron Of Hell</b> (red skin) – it advanced <b>Hell Knight</b> (white skin). <b>Baron Of Hell</b> take x0,5 damage. In <b>UDOOM</b> mode this unit spawns as <b>Baron Of Hell</b>.</p> <p><b>Possible upgrades:</b> - <b>Firepower</b> – increase missiles speed.</p>																								
	  <b>H</b>	<p><b>Cyberdemon</b></p> <table><tr><td><b>Class</b></td><td><i>ground, massive</i></td></tr><tr><td><b>Hits</b></td><td>2000</td></tr><tr><td><b>Production time</b></td><td>90</td></tr><tr><td><b>Energy required</b></td><td>8</td></tr><tr><td><b>Speed</b></td><td>10</td></tr><tr><td><b>Size</b></td><td>20</td></tr><tr><td><b>Base sight/attack radius</b></td><td>250 common 190 against <u>air</u></td></tr><tr><td><b>Pain state</b></td><td>every 15 hit 100</td></tr><tr><td><b>Attack</b></td><td>0,85 HPS 45 SDR</td></tr><tr><td><b>Base armor</b></td><td>3</td></tr><tr><td><b>Max count</b></td><td>1</td></tr><tr><td><b>Requirements</b></td><td><i>Hell Monastery</i> building</td></tr></table> <p>Heavy ground unit with ranged attack. Deal x1,5 damage to <u>buildings</u> and x0,5 to <u>light</u> units. You can't product <b>Cyberdemon</b> when <b>Mastermind</b> production in progress. Don't take splash-damage from rockets and grenades. Advanced <b>Cyberdemon</b> has 275 attack (against <u>ground</u>) and sight ranges.</p>	<b>Class</b>	<i>ground, massive</i>	<b>Hits</b>	2000	<b>Production time</b>	90	<b>Energy required</b>	8	<b>Speed</b>	10	<b>Size</b>	20	<b>Base sight/attack radius</b>	250 common 190 against <u>air</u>	<b>Pain state</b>	every 15 hit 100	<b>Attack</b>	0,85 HPS 45 SDR	<b>Base armor</b>	3	<b>Max count</b>	1	<b>Requirements</b>	<i>Hell Monastery</i> building
<b>Class</b>	<i>ground, massive</i>																									
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<b>Attack</b>	0,85 HPS 45 SDR																									
<b>Base armor</b>	3																									
<b>Max count</b>	1																									
<b>Requirements</b>	<i>Hell Monastery</i> building																									
	  <b>V</b>	<p><b>Spider Mastermind</b></p> <table><tr><td><b>Class</b></td><td><i>ground, massive</i></td></tr><tr><td><b>Hits</b></td><td>2000</td></tr><tr><td><b>Production time</b></td><td>90</td></tr><tr><td><b>Energy required</b></td><td>8</td></tr><tr><td><b>Speed</b></td><td>10</td></tr><tr><td><b>Size</b></td><td>35</td></tr><tr><td><b>Base sight/attack radius</b></td><td>275 common 205 against <u>air</u></td></tr><tr><td><b>Pain state</b></td><td>every 15 hit 12</td></tr><tr><td><b>Attack</b></td><td>9 HPS</td></tr><tr><td><b>Base armor</b></td><td>3</td></tr><tr><td><b>Max count</b></td><td>1</td></tr><tr><td><b>Requirements</b></td><td><i>Hell Monastery</i> building</td></tr></table> <p>Heavy ground unit with ranged attack. Deal x0,5 damage to <u>buildings</u>, x0,75 to <u>mechs</u> and x1,5 to <u>light</u> units. You can't product <b>Mastermind</b> when <b>Cyberdemon</b> production in progress. Don't take splash-damage from rockets and grenades. Advanced <b>Mastermind</b> has 325 attack (against <u>ground</u>) and sight ranges.</p>	<b>Class</b>	<i>ground, massive</i>	<b>Hits</b>	2000	<b>Production time</b>	90	<b>Energy required</b>	8	<b>Speed</b>	10	<b>Size</b>	35	<b>Base sight/attack radius</b>	275 common 205 against <u>air</u>	<b>Pain state</b>	every 15 hit 12	<b>Attack</b>	9 HPS	<b>Base armor</b>	3	<b>Max count</b>	1	<b>Requirements</b>	<i>Hell Monastery</i> building
<b>Class</b>	<i>ground, massive</i>																									
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<b>Requirements</b>	<i>Hell Monastery</i> building																									

	  <b>B</b>	<b>Pain Elemental</b>  <table><tr><td><b>Class</b></td><td><i>air, medium</i></td></tr><tr><td><b>Hits</b></td><td>200</td></tr><tr><td><b>Production time</b></td><td>40</td></tr><tr><td><b>Energy required</b></td><td>6</td></tr><tr><td><b>Speed</b></td><td>9</td></tr><tr><td><b>Size</b></td><td>14</td></tr><tr><td><b>Sight radius</b></td><td>250</td></tr><tr><td><b>Attack radius</b></td><td>350</td></tr><tr><td><b>Pain state</b></td><td>every 3 hit</td></tr><tr><td><b>Attack</b></td><td>spawn <b>Lost Soul</b> 0.6 HPS</td></tr><tr><td><b>Requirements</b></td><td><b>Hell Monastery</b> building</td></tr></table> <p>Flying unit. Spawn <b>Lost Soul</b> on attack or on «Action» order. Advanced <b>Pain Elemental</b> spawn advanced <b>Lost Souls</b> and spawn 3 <b>Lost Souls</b> after death.</p>	<b>Class</b>	<i>air, medium</i>	<b>Hits</b>	200	<b>Production time</b>	40	<b>Energy required</b>	6	<b>Speed</b>	9	<b>Size</b>	14	<b>Sight radius</b>	250	<b>Attack radius</b>	350	<b>Pain state</b>	every 3 hit	<b>Attack</b>	spawn <b>Lost Soul</b> 0.6 HPS	<b>Requirements</b>	<b>Hell Monastery</b> building		
<b>Class</b>	<i>air, medium</i>																									
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<b>Pain state</b>	every 3 hit																									
<b>Attack</b>	spawn <b>Lost Soul</b> 0.6 HPS																									
<b>Requirements</b>	<b>Hell Monastery</b> building																									
	  <b>N</b>	<b>Revenant</b>  <table><tr><td><b>Class</b></td><td><i>ground, light</i></td></tr><tr><td><b>Hits</b></td><td>200</td></tr><tr><td><b>Production time</b></td><td>40</td></tr><tr><td><b>Energy required</b></td><td>4</td></tr><tr><td><b>Speed</b></td><td>12</td></tr><tr><td><b>Size</b></td><td>13</td></tr><tr><td><b>Base sight/attack radius</b></td><td>250</td></tr><tr><td><b>Pain state</b></td><td>every 7 hit</td></tr><tr><td><b>Attack</b></td><td>30 0.8 HPS</td></tr><tr><td><b>Requirements</b></td><td><b>Hell Monastery</b> building</td></tr></table> <p>Ground unit with ranged attack. Deal x1,5 damage to <u>mechs</u> and x0,75 to <u>air</u> and <u>buildings</u>. Attacking other <b>Revenants</b> only with melee attack (damage same as ranged attack). Advanced <b>Revenant</b> has 325 attack ranges.</p> <p><b>Possible upgrades:</b> - <b>Revenant missile upgrade</b> - missiles become homing.</p>	<b>Class</b>	<i>ground, light</i>	<b>Hits</b>	200	<b>Production time</b>	40	<b>Energy required</b>	4	<b>Speed</b>	12	<b>Size</b>	13	<b>Base sight/attack radius</b>	250	<b>Pain state</b>	every 7 hit	<b>Attack</b>	30 0.8 HPS	<b>Requirements</b>	<b>Hell Monastery</b> building				
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<b>Attack</b>	30 0.8 HPS																									
<b>Requirements</b>	<b>Hell Monastery</b> building																									
	  <b>Ctrl + R</b>	<b>Mancubus</b>  <table><tr><td><b>Class</b></td><td><i>ground, massive</i></td></tr><tr><td><b>Hits</b></td><td>400</td></tr><tr><td><b>Production time</b></td><td>60</td></tr><tr><td><b>Energy required</b></td><td>6</td></tr><tr><td><b>Speed</b></td><td>6</td></tr><tr><td><b>Size</b></td><td>20</td></tr><tr><td><b>Sight radius</b></td><td>250</td></tr><tr><td><b>Attack radius</b></td><td>300 common 150 against <u>air</u></td></tr><tr><td><b>Pain state</b></td><td>every 4 hit</td></tr><tr><td><b>Attack</b></td><td>35x2 1.2 HPS</td></tr><tr><td><b>Base armor</b></td><td>3</td></tr><tr><td><b>Requirements</b></td><td><b>Hell Monastery</b> building <b>Ancient Evil</b> upgrade</td></tr></table> <p>Strong ground unit with ranged attack. Deal x1,5 to <u>buildings</u>, x0,5 to <u>light</u> units and x0,75 to <u>air</u> and <u>mechs</u>. Cannot attack other <b>Mancubus</b>. Advanced <b>Mancubus</b> have «<i>pain state</i>» resist.</p>	<b>Class</b>	<i>ground, massive</i>	<b>Hits</b>	400	<b>Production time</b>	60	<b>Energy required</b>	6	<b>Speed</b>	6	<b>Size</b>	20	<b>Sight radius</b>	250	<b>Attack radius</b>	300 common 150 against <u>air</u>	<b>Pain state</b>	every 4 hit	<b>Attack</b>	35x2 1.2 HPS	<b>Base armor</b>	3	<b>Requirements</b>	<b>Hell Monastery</b> building <b>Ancient Evil</b> upgrade
<b>Class</b>	<i>ground, massive</i>																									
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	  <b>Ctrl</b> <b>+</b> <b>T</b>	<p><b>Arachnotron</b></p> <p><b>Class</b> <i>ground, massive</i></p> <p><b>Hits</b> 350</p> <p><b>Production time</b> 50</p> <p><b>Energy required</b> 6</p> <p><b>Speed</b> 9</p> <p><b>Size</b> 20</p> <p><b>Sight/attack radius</b> 250</p> <p><b>Pain state</b> every 4 hit</p> <p><b>Attack</b> 15 4 HPS</p> <p><b>Base armor</b> 4</p> <p><b>Requirements</b> <i>Hell Monastery</i> building <i>Ancient Evil</i> upgrade</p> <p>Strong ground unit with ranged attack. Deal x0,5 damage to all <i>ground</i> units. Cannot attack other <b>Arachnotrons</b>. Advanced <b>Arachnotron</b> has 350 attack ranges against <i>air</i>.</p>
	  <b>Ctrl</b> <b>+</b> <b>Y</b>	<p><b>ArchVile</b></p> <p><b>Class</b> <i>ground, medium</i></p> <p><b>Hits</b> 400</p> <p><b>Production time</b> 90</p> <p><b>Energy required</b> 10</p> <p><b>Speed</b> 15</p> <p><b>Size</b> 15</p> <p><b>Sight radius</b> 250</p> <p><b>Attack radius</b> 400</p> <p><b>Pain state</b> every 12 hit 90</p> <p><b>Attack</b> 0.4 HPS 15 SDR</p> <p><b>Base armor</b> 3</p> <p><b>Requirements</b> <i>Hell Altar</i> building <i>Ancient Evil</i> upgrade</p> <p>Strong ground unit with ranged attack. Deal x0,5 damage to <i>buildings</i>. Advanced <b>ArchVile</b> can resurrect dead units.</p>

## SPECIAL UNITS





	<b>Ctrl</b> <b>+</b> <b>F G</b> <b>H V</b> <b>B N</b>  <b>U</b>	<p><b>Zombies</b></p> <p><b>Class</b> <i>ground / air, light</i></p> <p><b>Size</b> 12</p> <p><b>Pain state</b> every 2 hit</p> <p><b>Requirements</b> <i>Hell Military Unit</i> building</p> <p><b>UAC Infantry</b> that corrupted by advanced <b>Lost Soul</b>. <b>Zombies</b> don't have <b>UAC Infantry</b> abilities (<b>Engineer's mines</b>, <b>Medic's</b> paralyze bullets).</p>
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**Possible upgrades for all Hell units:**

- **Ranged attack upgrade** (for units with ranged attacks);
- **Unit armor upgrade**;
- **Regeneration** – damaged units will slowly regenerate their health;
- **Pain threshold** - decrease "pain state" chance.





**UAC UNITS**

UAC units have no «pain state».

Sprite	Icon / hot key	Description																		
	  <b>R</b>	<b>Engineer</b>  <table><tr><td><b>Class</b></td><td><i>ground, light</i></td></tr><tr><td><b>Hits</b></td><td>100</td></tr><tr><td><b>Production time</b></td><td>10</td></tr><tr><td><b>Energy required</b></td><td>1</td></tr><tr><td><b>Speed</b></td><td>13</td></tr><tr><td><b>Size</b></td><td>12</td></tr><tr><td><b>Sight/attack radius</b></td><td>220 common 165 against <u>air</u></td></tr><tr><td><b>Attack</b></td><td>6 1.7 HPS</td></tr><tr><td><b>Place in transport</b></td><td>1</td></tr></table> <p>Weak ground unit with ranged attack. Can repair own and allies damaged <u>mechanical</u> units. Deal x1,5 damage to <u>light</u> units, x0,5 to <u>massive</u> and x0,25 to <u>mechanical</u> units. Advanced <b>Engineer</b> can paralyze <u>mechs</u> when attack it.</p> <p><b>Possible upgrades:</b></p> <ul style="list-style-type: none"><li>- <b>Advanced repair and healing</b> - increase the efficiency of repairing;</li><li>- <b>Mines</b> - <b>Engineer</b> can set <b>Mines</b> (use «Action» order).</li></ul>	<b>Class</b>	<i>ground, light</i>	<b>Hits</b>	100	<b>Production time</b>	10	<b>Energy required</b>	1	<b>Speed</b>	13	<b>Size</b>	12	<b>Sight/attack radius</b>	220 common 165 against <u>air</u>	<b>Attack</b>	6 1.7 HPS	<b>Place in transport</b>	1
<b>Class</b>	<i>ground, light</i>																			
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	  <b>T</b>	<b>Medic</b>  <table><tr><td><b>Class</b></td><td><i>ground, light</i></td></tr><tr><td><b>Hits</b></td><td>100</td></tr><tr><td><b>Production time</b></td><td>10</td></tr><tr><td><b>Energy required</b></td><td>1</td></tr><tr><td><b>Speed</b></td><td>13</td></tr><tr><td><b>Size</b></td><td>12</td></tr><tr><td><b>Sight/attack radius</b></td><td>220 common 165 against <u>air</u></td></tr><tr><td><b>Attack</b></td><td>6 1.5 HPS</td></tr><tr><td><b>Place in transport</b></td><td>1</td></tr></table> <p>Weak ground unit with ranged attack. Can repair own and allies damaged <u>biological</u> units. Deal x1,5 damage to <u>light</u> units, x0,5 to <u>massive</u> and x0,25 to <u>mechanical</u> units. Advanced <b>Medic</b> can paralyze <u>biological</u> units.</p> <p><b>Possible upgrades:</b></p> <ul style="list-style-type: none"><li>- <b>Advanced repair and healing</b> - increase the efficiency of healing.</li></ul>	<b>Class</b>	<i>ground, light</i>	<b>Hits</b>	100	<b>Production time</b>	10	<b>Energy required</b>	1	<b>Speed</b>	13	<b>Size</b>	12	<b>Sight/attack radius</b>	220 common 165 against <u>air</u>	<b>Attack</b>	6 1.5 HPS	<b>Place in transport</b>	1
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	  <b>Y</b>	<b>Sergeant</b>  <table><tr><td><b>Class</b></td><td colspan="2"><i>ground, light</i></td></tr><tr><td><b>Hits</b></td><td colspan="2">100</td></tr><tr><td><b>Production time</b></td><td colspan="2">10</td></tr><tr><td><b>Energy required</b></td><td colspan="2">2</td></tr><tr><td><b>Speed</b></td><td colspan="2">13</td></tr><tr><td><b>Size</b></td><td colspan="2">12</td></tr><tr><td><b>Sight/attack radius</b></td><td colspan="2">240 common 180 against <u>air</u></td></tr><tr><td rowspan="4"><b>Attack</b></td><td><b>Not advanced:</b></td><td><b>Advanced:</b></td></tr><tr><td>- min: 9</td><td>- min: 12</td></tr><tr><td>- max: 28</td><td>- max: 41</td></tr><tr><td>max SDR: 30</td><td>max SDR: 40</td></tr><tr><td></td><td colspan="2">1 HPS, min SDR: 10</td></tr><tr><td><b>Place in transport</b></td><td colspan="2">1</td></tr></table> <p>Ground unit with ranged attack. Deal x0,5 damage to <u>fly</u>, <u>light</u> and <u>massive</u> units, x0,25 to <u>mechanical</u> units. Damage and splash-range depends from distance to target. Advanced <b>Sergeant</b> deal more damage and have more SDR. <b>Sergeant's</b> attack set Hell units into «<i>pain state</i>» more often than other units attack.</p>	<b>Class</b>	<i>ground, light</i>		<b>Hits</b>	100		<b>Production time</b>	10		<b>Energy required</b>	2		<b>Speed</b>	13		<b>Size</b>	12		<b>Sight/attack radius</b>	240 common 180 against <u>air</u>		<b>Attack</b>	<b>Not advanced:</b>	<b>Advanced:</b>	- min: 9	- min: 12	- max: 28	- max: 41	max SDR: 30	max SDR: 40		1 HPS, min SDR: 10		<b>Place in transport</b>	1	
<b>Class</b>	<i>ground, light</i>																																					
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	  <b>F</b>	<b>Commando</b>  <table><tr><td><b>Class</b></td><td colspan="2"><i>ground, light</i></td></tr><tr><td><b>Hits</b></td><td colspan="2">100</td></tr><tr><td><b>Production time</b></td><td colspan="2">15</td></tr><tr><td><b>Energy required</b></td><td colspan="2">2</td></tr><tr><td><b>Speed</b></td><td colspan="2">11</td></tr><tr><td><b>Size</b></td><td colspan="2">12</td></tr><tr><td><b>Sight/attack radius</b></td><td colspan="2">250 common 220 against <u>air</u></td></tr><tr><td rowspan="2"><b>Attack</b></td><td colspan="2">6</td></tr><tr><td colspan="2">8 HPS</td></tr><tr><td><b>Place in transport</b></td><td colspan="2">1</td></tr></table> <p>Ground unit with ranged attack. Deal x1,5 damage to <u>light</u> units, x0,5 to <u>massive</u> and x0,25 to <u>mechanical</u> units. Advanced <b>Commando</b> has invisibility.</p>	<b>Class</b>	<i>ground, light</i>		<b>Hits</b>	100		<b>Production time</b>	15		<b>Energy required</b>	2		<b>Speed</b>	11		<b>Size</b>	12		<b>Sight/attack radius</b>	250 common 220 against <u>air</u>		<b>Attack</b>	6		8 HPS		<b>Place in transport</b>	1								
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<b>Place in transport</b>	1																																					
	  <b>G</b>	<b>Artillery soldier</b>  <table><tr><td><b>Class</b></td><td colspan="2"><i>ground, light</i></td></tr><tr><td><b>Hits</b></td><td colspan="2">100</td></tr><tr><td><b>Production time</b></td><td colspan="2">30</td></tr><tr><td><b>Energy required</b></td><td colspan="2">4</td></tr><tr><td><b>Speed</b></td><td colspan="2">10</td></tr><tr><td><b>Size</b></td><td colspan="2">12</td></tr><tr><td><b>Base sight/attack radius</b></td><td colspan="2">250</td></tr><tr><td rowspan="2"><b>Attack</b></td><td colspan="2">50</td></tr><tr><td colspan="2">0.6 HPS</td></tr><tr><td><b>Place in transport</b></td><td colspan="2">1</td></tr><tr><td><b>Requirements</b></td><td colspan="2"><b>UAC Weapon Factory</b> building</td></tr></table>	<b>Class</b>	<i>ground, light</i>		<b>Hits</b>	100		<b>Production time</b>	30		<b>Energy required</b>	4		<b>Speed</b>	10		<b>Size</b>	12		<b>Base sight/attack radius</b>	250		<b>Attack</b>	50		0.6 HPS		<b>Place in transport</b>	1		<b>Requirements</b>	<b>UAC Weapon Factory</b> building					
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		Ground unit with ranged attack. Deal x1,5 damage to <u>buildings</u> and x0,5 damage to <u>light</u> and <u>mechs</u> units. Cannot attack <u>air</u> units. Cannot attack units closer than 45 pixels. Advanced <b>Artillery soldier</b> have 275 attack and sight radius.																				
	  <b>H</b>	<b>Major</b> <table><tr><td><b>Class</b></td><td><i>ground/air, light</i></td></tr><tr><td><b>Hits</b></td><td>100</td></tr><tr><td><b>Production time</b></td><td>20</td></tr><tr><td><b>Energy required</b></td><td>4</td></tr><tr><td><b>Speed</b></td><td><b>Not advanced:</b> 9 <b>Advanced:</b> 13</td></tr><tr><td><b>Size</b></td><td>12</td></tr><tr><td><b>Sight/attack radius</b></td><td>250</td></tr><tr><td><b>Attack</b></td><td>15 4 HPS</td></tr><tr><td><b>Place in transport</b></td><td>1</td></tr><tr><td><b>Requirements</b></td><td><b>UAC Weapon Factory</b> building</td></tr></table> <p>Ground/air unit with ranged attack. Deal x1,5 damage to <u>mechs</u>, x0,5 <u>light</u> and <u>air</u> units, x0,75 to <u>buildings</u>. Advanced <b>Major</b> can fly (use «Action» order).</p>	<b>Class</b>	<i>ground/air, light</i>	<b>Hits</b>	100	<b>Production time</b>	20	<b>Energy required</b>	4	<b>Speed</b>	<b>Not advanced:</b> 9 <b>Advanced:</b> 13	<b>Size</b>	12	<b>Sight/attack radius</b>	250	<b>Attack</b>	15 4 HPS	<b>Place in transport</b>	1	<b>Requirements</b>	<b>UAC Weapon Factory</b> building
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	  <b>V</b>	<b>BFG Marine</b> <table><tr><td><b>Class</b></td><td><i>ground, light</i></td></tr><tr><td><b>Hits</b></td><td>100</td></tr><tr><td><b>Production time</b></td><td>60</td></tr><tr><td><b>Energy required</b></td><td>5</td></tr><tr><td><b>Speed</b></td><td>10</td></tr><tr><td><b>Size</b></td><td>12</td></tr><tr><td><b>Sight/attack radius</b></td><td>250</td></tr><tr><td><b>Attack</b></td><td>125 125 SDR 0.4 HPS</td></tr><tr><td><b>Place in transport</b></td><td>1</td></tr><tr><td><b>Requirements</b></td><td><b>UAC Weapon Factory</b> building</td></tr></table> <p>Ground unit with ranged attack. Deal x0,5 damage to <u>light</u>, <u>mechs</u> units and <u>buildings</u>. Advanced <b>BFG Marine</b> has 275 attack and sight ranges.</p>	<b>Class</b>	<i>ground, light</i>	<b>Hits</b>	100	<b>Production time</b>	60	<b>Energy required</b>	5	<b>Speed</b>	10	<b>Size</b>	12	<b>Sight/attack radius</b>	250	<b>Attack</b>	125 125 SDR 0.4 HPS	<b>Place in transport</b>	1	<b>Requirements</b>	<b>UAC Weapon Factory</b> building
<b>Class</b>	<i>ground, light</i>																					
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<b>Place in transport</b>	1																					
<b>Requirements</b>	<b>UAC Weapon Factory</b> building																					

**Possible upgrades for all UAC Infantry:**

- **Infantry armor upgrade;**
- **Lightweight armor** - increase infantry move speed



# B

## Air APC

<b>Class</b>	<i>mech, ground</i>
<b>Hits</b>	250
<b>Production time</b>	25
<b>Energy required</b>	3
<b>Speed</b>	22
<b>Size</b>	33
<b>Sight/attack radius</b>	250
<b>Attack (upgrade)</b>	6/12 2 HPS
<b>Base transport place count</b>	10
<b>Base armor</b>	3
<b>Requirements</b>	<b>UAC Weapon Factory</b> building

Fast air transport. Can transporting all ground UAC units. Advanced **Air APC** has 14 places.

### Possible upgrades:

- **APC turret** – give to APC weapon.



**N**





## Ground APC



<b>Class</b>	<i>mech, ground</i>
<b>Hits</b>	350
<b>Production time</b>	25
<b>Energy required</b>	3
<b>Speed</b>	15
<b>Size</b>	15
<b>Sight/attack radius</b>	250
<b>Attack (after upgrade)</b>	6/12 2 HPS
<b>Base transport place count</b>	4
<b>Base armor</b>	3
<b>Places in transport</b>	8
<b>Requirements</b>	<b>UAC Weapon Factory</b> building

Fast ground transport. Can transporting all ground **UAC infantry**. Advanced **Air APC** has 6 places. Marines can attack while they in APC.

### Possible upgrades:

- **APC turret** – give to APC weapon.

	  <b>Ctrl</b> <b>+</b> <b>R</b>	<p><b>Terminator</b></p> <p> <b>Class</b> <i>mech, ground</i>  <b>Hits</b> 350  <b>Production time</b> 60  <b>Energy required</b> 6  <b>Speed</b> 14  <b>Size</b> 16  <b>Sight/attack radius</b> 275 common  <b>Attack</b> 6/12  8 HPS  <b>Base armor</b> 3  <b>Place in transport</b> 3 </p> <p> <b>Requirements</b> <b>UAC Tech Center</b> building  <b>High technologies</b> upgrade </p> <p>Heavy ground unit with ranged attack. Attacking with chain gun (not advanced - like <b>Commando</b>/advanced like <b>Mastermind</b>).</p>
	  <b>Ctrl</b> <b>+</b> <b>T</b>	<p><b>Tank</b></p> <p> <b>Class</b> <i>mech, ground</i>  <b>Hits</b> 400  <b>Production time</b> 60  <b>Energy required</b> 8  <b>Speed</b> 10  <b>Size</b> 20  <b>Sight/attack radius</b> 250  <b>Attack</b> 45 SDR  0.6 HPS  <b>Base armor</b> 3  <b>Place in transport</b> 7 </p> <p> <b>Requirements</b> <b>UAC Tech Center</b> building  <b>High technologies</b> upgrade </p> <p>Heavy ground unit with ranged attack. Deal x1,5 damage to <u>buildings</u> and x0,5 damage to <u>light</u> units. Cannot attack <u>air</u> units. Cannot attack units closer than 45 pixels. Advanced <b>Tank</b> has 325 attack ranges.</p>

		<b>Flyer</b>  <b>Class</b> <i>mech, air</i> <b>Hits</b> 350 <b>Production time</b> 60 <b>Energy required</b> 8 <b>Speed</b> 19 <b>Size</b> 18 <b>Sight/attack radius</b> 275 <b>Attack</b> 30 <b>Attack</b> 2 HPS <b>Base armor</b> 3 <b>Requirements</b> <b>UAC Tech Center</b> building <b>High technologies</b> upgrade  Heavy ground unit with ranged attack. Deal x0,5 damage to <u>ground</u> units and <u>buildings</u> . Advanced <b>Flyer</b> can attack in moving.
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**Possible upgrades for all UAC Mechs:**











- **Mech armor upgrade;**
- **Advanced engines** - increase mechs move speed.

























## OTHER UNITS



Sprite	Description

# UPGRADES









## Hell

Icon / Hot key	Time Energy Level	Description	Requirements
 R	180 4 4	<b>Range attack upgrade</b>  Increase ranged attacks damage.	
 T	180 4 4	<b>Unit armor upgrade</b>  Increase units armor.	
 Y	120 4 4	<b>Buildings armor upgrade</b>  Increase buildings armor.	
 F	60 2 3	<b>Melee attack upgrade</b>  Increase melee attacks damage.	
 G	120 3 2	<b>Regeneration</b>  Damaged units will slowly regenerate their health.	
 H	60 2 4	<b>Pain threshold</b>  Decrease "pain state" chance.	
 V	120 3 3	<b>Hell Eye</b>  Lost Soul ability & Hell Eye sight radius. In <b>UDOOM</b> game mod, last level of upgrade make <b>Hell Eye</b> invisible.	
 B	120 3 3	<b>Tower range upgrade</b>  Increased range of defensive structures.	
 N	120 2 3	<b>Teleport upgrade</b>  Decrease teleport cooldown.	
 U	180 3 1	<b>Hell Keep teleportation</b>  Hell keep can teleport to any place.	













 I	 120 3 2	<b>Decay Aura</b>  <b>Hell Keep</b> will damage all enemies around. Also, this aura neutralize stun effects on own and allied units.	
 O	 120 2 2	<b>Hell Keep range upgrade</b>  Increased Hell Keep view/build range.	
 J	 60 3 1	<b>Demon`s anger</b>  Increased Demon`s movement and attack speed.	
 K	 120 2 1	<b>Firepower</b>  Increase missiles speed for <b>Imp</b> , <b>Cacodemon</b> and <b>Baron of Hell/Hell Knight</b> .	
 L	 20 8 15	<b>Hell power</b>  Allow Hell Monastery upgrade units.	<b>Hell Monastery building</b>
 Ctrl+R	 180 10 1	<b>Ancient evil</b>  New buildings, units and upgrades.	
 Ctrl+T	 120 3 1	<b>Reverse teleport</b>  Units can teleport back to Hell Teleport.	<b>Hell Monastery building</b>  <b>Ancient evil upgrade</b>
 Ctrl+Y	 120 2 1	<b>Revenant missile upgrade</b>  Missiles become homing	
 Ctrl+F	 120 2 1	<b>Hell Totem and Eye invisibility</b>	
 Ctrl+G	 120 2 3	<b>Building restoration</b>  Damaged buildings will slowly regenerate their health.	
 Ctrl+H	 60 2 1	<b>Free teleportation</b>  Hell Keep can teleport on obstacles.	
 Ctrl+V	 30 1 15	<b>Short distance teleportation</b>  Hell Symbols, Towers, Totems and Altars can teleport to short distance.	





 <b>Ctrl+B</b>	<b>180</b> <b>10</b> <b>3</b>	<b>Invulnerability</b>  All hell units become invulnerable for 15 seconds.	<b>Hell Altar</b> building <b>Ancient evil</b> upgrade
 <b>Ctrl+N</b>	<b>180</b> <b>4</b> <b>3</b>	<b>Built-in Hell Symbol</b>  Additional energy for Hell Keep.	

## UAC

Icon / Hot key	Time Energy Level	Description	Requirements
 <b>R</b>	<b>180</b> <b>4</b> <b>4</b>	<b>Range attack upgrade</b>  Increase ranged attacks damage.	
 <b>T</b>	<b>120</b> <b>4</b> <b>5</b>	<b>Unit armor upgrade</b>  Increase units armor.	
 <b>Y</b>	<b>180</b> <b>4</b> <b>4</b>	<b>Buildings armor upgrade</b>  Increase buildings armor.	
 <b>F</b>	<b>60</b> <b>3</b> <b>3</b>	<b>Advanced repair and healing</b>  Increases the efficiency of repair/healing of Engineers and Medics.	
 <b>G</b>	<b>120</b> <b>3</b> <b>2</b>	<b>Lightweight armor</b>  Increase infantry move speed.	
 <b>H</b>	<b>120</b> <b>2</b> <b>2</b>	<b>APC turret</b>  Weapon for APCs.	
 <b>V</b>	<b>120</b> <b>3</b> <b>1</b>	<b>Detector device</b>  Radar and mines becomes detectors.	
 <b>B</b>	<b>120</b> <b>3</b> <b>3</b>	<b>Turrets range upgrade</b>  Increased attack range of defensive structures.	



 N	120 2 3	<b>Radar upgrade</b>  Increase radar scouting time and radius.	
 U	180 3 1	<b>Command Center engines</b>  Command Center gains ability to fly.	
 I	180 4 1	<b>Command Center turret</b>  Flying Command Center will be able to attack	Command Center engines upgrade
 O	120 2 2	<b>Command Center range</b>  Increased Command Center view/build range.	
 J	120 2 2	<b>Mines</b>  <b>Engineer</b> ability.	
 K	60 2 1	<b>Mine-sensor</b>  Mine ability.	Mines upgrade
 L	180 8 1	<b>Advanced armory</b>  Tech Center will be able to upgrade own units.	UAC Tech Center building
 Ctrl+R	180 10 1	<b>High technologies</b>  New buildings, units and upgrades.	
 Ctrl+T	180 10 8	<b>Missile strike</b>  Missile for Rocket Launcher Station.	UAC Tech Center building High technologies upgrade
 Ctrl+Y	120 3 2	<b>Advanced engines</b>  Increase mechs move speed.	
 Ctrl+F	180 4 4	<b>Mech armor upgrade</b>  Increase mechs armor.	
 Ctrl+G	120 2 1	<b>Fast rearming</b>  Decrease Tech Center upgrade reloads time.	

 <b>Ctrl+H</b>	<b>60</b> <b>T</b> <b>2</b> <b>1</b>	<b>Free placement</b>  Command center will be able to land on obstacles.	<b>UAC Tech Center building</b> <b>High technologies upgrade</b>
 <b>Ctrl+V</b>	<b>120</b> <b>T</b> <b>3</b> <b>2</b>	<b>Turrets armor</b>  Additional armor for turrets.	
 <b>Ctrl+B</b>	<b>180</b> <b>T</b> <b>4</b> <b>1</b>	<b>Rocket turrets</b>  Turrets can upgrade to Rocket turrets.	
 <b>Ctrl+N</b>	<b>180</b> <b>T</b> <b>4</b> <b>3</b>	<b>Built-in generator</b>  Additional energy for Command Center.	