

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

# Main menu

# **Section MAP**

# Map settings:

Number (0-4294967295) – determines obstacles positions. Right click - generate random value.

Size – map size in pixels (value between 3000-7000 with step of 500).

Lakes – "lake's" obstacles part.

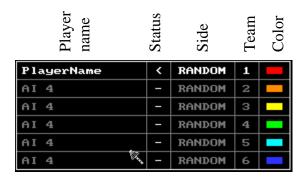
Obstacles - count of obstacles.

Random map – set random map settings.

Liquid type in lakes (water, slime, blood, mud or lava) and land texture depend on *Number*. Lava and slime do not damage units.

# **Section PLAYERS**

Players table.



# Fields:

## Player name:

- If *Status* = «**C**» (computer player), left click here to switch AI level;
- If  $Status = \langle \mathbb{C} \rangle$  (computer player) or  $\langle \rangle$  (empty slot), right click here to move you on this line.

#### Status:

 $\leftarrow \rightarrow -$  Empty slot;

 $\langle\langle \mathbf{C}\rangle\rangle$  – Computer player.

For multiplayer game:

«+» or «-» - Player «ready» status;

«?» – Connection problem;

«@» – Host player (server);

<<>> − You position.

Side – <mark>Hell</mark> or <mark>ŪAC</mark>.

Team - 1-6, players with equal team number will be allies.

Color – player color cannot be changed.

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

## **Section SETTINGS**

#### Subsection «GAME»:

RIGHT CLICK – order type for units on right click.

If field value = «Move+attack», then order on right click = «move, attacking all enemies on way» and right click + Ctrl key = «move, ignoring enemies».

If field value = «Move», then right click = «move, ignoring enemies» and right click + Ctrl key = «move, attacking all enemies on way».

SCROLL SPEED – camera move speed;

MOUSE SCROLL – turn off/on of mouse scroll;

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

INTERFACE LANGUAGE - English or Russian.

Subsection «VIDEO»:

WINDOW RESOLUTION: 800\*600 / 960\*720 / 1024\*768;

WINDOWED - full screen or windowed;

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 CMPAINGS

Missions list of campaign.

# **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 console version, where it 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 it through chat using text commands.

-h or -help – show all exist chat-commands;

Game automatically start when all player ready (Field  $Ready = \ll + \gg$ ).

Server reset game after 10 seconds after last player disconnect.

# Game mechanics



### Game control panel

From top to down:

Game minimap:

Minimap alarm indicators types:

- White pulse circle units alarm;
- White pulse square buildings alarm.

Line under minimap:

Energy section – free energy level and maximum energy level;

Army section – total number of **buildings** and **all units** (units + buildings).

#### Tabs:

- Units and buildings;
- Upgrades/researches;
- Replay management.

Tab «replay management» active only when record playback.

Tab «units and buildings»:

- first 9 icons buildings;
- next 12 icons units;
- next 3 icons special units icons (for **UAC** count of **Mines**, for **Hell** count of **Zombies** and **Hell Eyes**);
- next 3 icons icons of some orders;
- last 2 buttons:
- -- «Menu»;
- -- «Pause» turn on/off game pause (available only in multiplayer game).

Numbers on tab of *«upgrades/researches»*: white number – time to end of nearest research; yellow number – total count of current researches in progress.

Numbers on icons of buildings/units:

(for buildings and units)

- on right down (orange or gray color): total count of this type of building/unit. If numbers have gray color count of these buildings/units reached limit;
- on right top (green color): total count of selected buildings/units of this type;
- on left top (yellow color): total count of this buildings/units type in production;
- on left top (white color): time to end of nearest unit production;
- on left down (purple color): number units of this type in selected transport; (on left down, for buildings only)
- UAC Radar, UAC Tech Center, UAC Rocket Launcher Station, Hell Teleport, Hell Altar: reload time;
- UAC Rocket Launcher Station: missiles count;
- Hell Monastery: Hell Powers's charges:
- Hell Altar: Invulnerability spheres;

(for upgrades)

- on right top: green color - research level; gray color - upgrade research level reached maximum; yellow - total count of this upgrade type in production.

#### **Icons hint format**

Reverse teleport (B) [120] {3} x1 \*
Units can teleport back to Hell Teleport.
Requirements: Hell Monastery, Ancient evil

Short description (HOTKEY) [PRODUCTION TIME] {energy} xupgrade max level Description
Requirements: (if exits)

# Unit selection and orders

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

You can add units to selection with «**Shift**» button. Double click on unit to select all of it type 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**\*). Fast double press on group hotkey to move camera to this group. Also, **(Ctrl)**\*+(**A**\*) combination will select all battle units on map. Orders:

- Right click to any point move and attack all enemy on way;
- Right click with Ctrl just move;

You can switch these actions in **SETTINGS** section in main menu.

- Right click to enemy unit attack this enemy unit;
- Right click to ally unit follow it and attack all enemies on way.
- «Action» («**Ctrl**» + «**Space**» ho<u>tkeys</u> or button) do some ability (if unit have it).
- «Destroy» («**Delete**» hot key or button) destroy selected units.
- «Cancel» («**Space**» hot key or button) cancel order (for units stop here; for production buildings abort current production);

To fast select some special buildings (UAC Radar, Tech Center, and Rocket Station, Hell Monastery, Teleport and Altar) click on it icon or press hot key.

For buildings, which can produce units, you can set rally-point with right click.

### **Build base, units and upgrades production**

For build you must have at least 1 main building. Press on building icon on control panel to select which building type you need. It start draw circle around cursor. Radius of circle is radius of building. If circle is red - not enough space, if blue - too far from builder, if green - you can start build here. Right click to cancel selection. If icons are disabled, it can mean: there is no one main building, number of buildings of this type reached limit, not enough energy or not satisfied requirements. There is cooldown for 2 seconds between starting build any building.

Unit's icons enabled when there is at least one **Hell Gate** or **UAC Military unit**, 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. One building can produce only one unit at one time.

<sup>\*</sup> it possible to produce this upgrade in many buildings at time.

For **Hell** side, press on zombie icon to start zombie production in **Hell Military unit** and use «Action» order to change Zombie type.

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.

## Moving camera

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

## Hot keys

**TAB** – switching game control panel tabs;

Tab «Units and buildings»:

QWEASDZXC - buildings;

RTYFGHVBNUIO-units;

M – start zombie production in Hell Military unit;

Tab «*Upgrades/researches*»:

# QWEASDZXCRTYFGHVBNUIOJK-upgrades;

- «**Ctrl**» + «**Space**» («Action») do some ability (if unit have it).
- «Delete» («Destroy») destroy selected units.
- «**Space**» («Cancel») cancel order (for units stop here; for production buildings stop current production);
- -«Alt» draw colored rectangles and health bars above units;
- $-\langle\langle Ctrl\rangle\rangle + \langle\langle A\rangle\rangle$  select all battle units on map.
- «Pause/Break» pause/continue game in network game. Client can't cancel server's pause.
- «PrtScr» make screenshot.

# Resources and army limit

There is no gold/wood/minerals/etc. like in other RTS games. There is energy level that means how many units produce/build buildings/research upgrades at one time you can. Maximum unit count (all units + all buildings!) for all players - 110.

# **Game settings**



# Game:

- **DOOM 2** «*DOOM 2*» mode.
- **UDOOM** *«The Ultimate DOOM»* mode; there is no additional buildings/units/upgrades and some difference in game balance.

### Game mode:

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

Two bases - 3x3 - red+orange+yellow vs green+aqua+blue players.

Three bases - 2x2x2 - red+orange vs yellow+green vs aqua+blue players.

**Invasion** - all players in one team. You need survive for 20 waves of powerful monsters.

**Capturing points** - there is 6 points on map that needs to capture. Capturing process will be faster if you use many units for this. Point will heal units in it.

**Assault** – like invasion, but you must destroy enemy base in center of map.

Starting base: player resources on game start;

Show player starts: if "\(\frac{1}{4}\)" game show you players start positions on map.

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

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 less armor and take more damage. If maximum energy level = 0 - all buildings will explode. In non-campaign games, if player loss all their builders – all his units revealed on map.

Armor will decrease damage.

Every unit can be advanced. Advanced units have some ability or increased some parameters.

Advanced unit have white symbol on selection rectangle:





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

	Icon /		D 1.4
	Hot key		Description
		Hell Keep	
		Hits	3000
		Size	66
		Building time	75
		Base sight radius	280
***		Max count	Unlimited
	.th	Energy required	8
T The second sec		Energy provided	6
	_	Main building. Allows	s you to build base.
	Q	Possible upgrades:	ation – allow <b>HK</b> to teleport to any map
400		place;	ation – allow IIK to teleport to any map
			start damage enemy units around;
		- Sight radius upgrad	
			n – allow <b>HK</b> teleporting on map
		obstacles;	
		- Built-in Hell Symbol	<ul> <li>increase provided energy level.</li> </ul>
		Hell Gate	
22 St 25 St 25 St		Hits	1500
	<b>333</b> 1	Size	60
	C2#	Building time	41
		Sight radius	200
	<b>T X 7</b>	Max count	Unlimited
	W	Energy required	4
		Produce units.	
		Hell Symbol	
		Hits	200
		Size	24
		Building time	10
	78. 1	Sight radius	200
		Max count	Unlimited
		<b>Energy required</b>	1
	E	Energy provided	1
		Provide energy.	
		Possible upgrades:	
		- Short distance telep	portation;

	Hell Pool	
A	Hits Size Building time Sight radius Max count Energy required Research upgrades.	1000 53 41 200 Unlimited 6
	Hell Tower	
S	but Revenants - with  Possible upgrades: - Range attack upgrades: - Attack/sight radius: - Short distance telep	Unlimited 2 tacking all units with <b>Revenant</b> fireballs, <b>Cacodemon</b> fireballs.  ade; supgrade;
D	click to set destination Hell Teleport or it depend from unit pow  Possible upgrades: - Teleport upgrade -	500 28 25 200 1 4  point: select <b>Hell Teleport</b> and do right n point; select units and do right click on icon. Reload time after teleportation ver. Can teleport allies units.  decrease reload time; units can teleport back to <b>Hell Teleport</b> .

	Hell Monastery	
Z	There is 2 methods to 1) Select <b>Hell Monas</b>	1000 65 100 200 Unlimited 10 Hell Pool building  es for units advancing; make advance any unit: etery and do right click on unit; right click to Hell Monastery building tanel;
X	Hell Totem  Hits Size Building time Base sight/attack ra Max count Energy required Requirements  Advanced defense str  Possible upgrades: - Range attack upgrades: - Short distance telegative.	Unlimited 3 Hell Monastery building Ancient Evil upgrade ucture. Attacking like ArchVile unit. ade; s upgrade;
C	Hell Altar  Hits Size Building time Sight radius Max count Energy required Requirements  Cast Invulnerability  Possible upgrades: - Invulnerability- ch	

# SPECIAL BUILDINGS

# **Hell Eye**

Base sight radius 250

Max count Unlimited

Requirements

Unlimited

Lost Soul unit

Hell Eye upgrade

Detector. Summoned by a **Lost Soul**. Live time - 2 minutes. Dies after single hit.

# Possible upgrades:

- **Hell Eye** increase sight radius;
- Invisibility;

# **Hell Military Unit**



Hits 1500
Size 70
Sight radius 200
Max count Unlimited

**Requirements** advanced *Lost Soul* unit

Produce zombies and Hell units. To start zombie production – press

bottom on control panel or **M** hot key. To change **zombie** type – select **Hell Military Unit** and do «Action» order.

# 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.



Sprite	Icon / Hot key		Description
	Q	to fly (use «Action» of - Sight radius upgrawhen it on ground; - Command Center (attacking like Major	4000 66 93 280 Unlimited 8 6 s you to build base.  flight - Command Center gains ability order to fly up or land CC); ade; this upgrade have effect on CC only  Turret - CC can attack when it flying
	W	Hits Size Building time Sight radius Max count Energy required  Produce units.	1700 66 40 200 Unlimited 4
	E	Hits Size Building time Sight radius Max count Energy required Energy provided Provide energy.	400 42 20 200 Unlimited 2 2

	UAC Weapon Factory
A	Hits 1700 Size 62 Building time 40 Sight radius 200 Max count Unlimited Energy required 6  Research upgrades.
	UAC Chaingun Turret
S	Hits 400 Size 17 Building time 15 Base sight/attack radius 250 Max count Unlimited Energy required 2 Attack 12 Attack 4 HPS  Defense structure. Attacking like Mastermind unit.  Possible upgrades: - Range attack upgrade; - Attack/sight radius upgrade; - Turrets armor; - Rocket turrets — can upgrade to Rocket turret (use «Action» order, required 2 energy points and UAC Tech Center).
D	Hits 500 Size 35 Building time 31 Base sight radius 200 Max count 1 Energy required 2  Reveals map. To reveal any map area – select Radar and do right click on this area.  Possible upgrades: - Detectors; - Radar upgrade - Increase radar scouting time and radius.

		<b>UAC Tech Center</b>	
		Hits	1700
		Size	62
		Building time	94
		Sight radius	200
DESCRIPTION OF THE PARTY OF THE		Max count	1
		Energy required	10
		Requirements	UAC Weapon Factory building
		•	1
	77	Can advance units.	
	Z	Possible upgrades:	
			- <b>Tech Center</b> will be able to upgrade
		units;	18
		· ·	decrease <b>Tech Center</b> upgrade reloads
		time.	10
		To advance unit, se	lect unit and do right click on Tech
		Center or it icon on c	<del>_</del>
		UAC Plasma Turret	*
		Hits	400
		Size	17
		Building time	20
		Base sight/attack	
		radius	250
		Max count	Unlimited
	59486	Energy required	2
2.4	4	Requirements	UAC Weapon Factory building
	21	1.	
	$\mathbf{X}$	Defense structure. Att	acking like <b>Major</b> unit.
		Possible upgrades:	· ·
		- Range attack upgra	ade;
		- Attack/sight radius	upgrade;
		- Turrets armor;	
		- Rocket turrets – ca	n upgrade to <b>Rocket turret</b> (use
			red 2 energy points and UAC Tech
		Center).	
		<b>UAC Rocket Launch</b>	ner Station
		Hits	500
		Size	40
-	1	Building time	31
		Sight radius	200
<b>a</b> .	V SE	Max count	1
		Energy required	4
	C	Requirements	UAC Tech Center building
			te. Missile strike requires " <b>Missile</b>
			sile have 250 damage and 150 <b>SDR</b> .
		_	<u>light</u> units, x1,5 to <u>buildings</u> and x0,5 to
		<u>air</u> .	

# **SPECIAL BUILDINGS**

	Mine	
<b>⊗</b>		can switch to sensor mode that provide not explode under enemy unit (use
	 UAC Rocket Turret  Hits Size Building time Base sight/attack rac Max count Energy required  Requirements	500 17 20 250 common 190 against <u>air</u> Unlimited 2 UAC Tech Center building Rocket turrets upgrade acking like Cyberdemon unit with 0,6

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  $\langle pain\ state \rangle$  - state when it stun and cannot attack and move.  $\langle Pain\ state \rangle$  happens every X hit from most attacks or more often from other.

	Loon		
	Icon		
Sprite	'		Description
_	hot		•
A	key	<b>T</b> 40 <b>T</b>	
		Lost Soul	
		Class	soaring, light
	_	Hits	90
	R	Production time	8
		Energy required	1
		Speed	23
		Size	10
		Sight/attack radius	250
		Pain state	every 3 hit
		1 am state	10
		Attack	1 HPS
			1 nrs
<b>A</b>	A	Possible upgrades: - Melee attack upgrade; - Hell Eye – Lost Soul ca	n transform to <b>Hell Eye</b> (use «Action» order);
N.		_	around light
		Class	ground, light
	$\mathbf{T}$	Hits	70
	1	Production time	5
		Energy required	1
		Speed	9
		Size	12
		Sight/attack radius	250
		Pain state	every 3 hit
		Attack	12
		110001	1 HPS
			ranged attack. Deal x0,5 damage to <u>air</u> and ing other <b>Imps</b> only with melee attack (damage dvanced <b>Imp</b> has 2 HPS.
		Possible upgrades: - Firepower – increase mi	issiles speed.

	Demon	
1	Class	around modium
		ground, medium 150
Y	Hits Production time	8
	Energy required	2
	Speed	15
	Size	14
	Sight/attack radius	200
	Pain state	every 8 hit
	Attack	40 1 HPS
	Base armor	2
		e attack. Cannot attack air units (except Lost
	Soul). Advanced <b>Demon</b> has	
	Possible upgrades:	, 11, 12, 21, 11, 11, 11, 11, 11, 11, 11
		Demon's movement speed and attack.
Market Comments	Cacodemon	= a mo , amain apara ana anara.
Said Said		
	Class	air, medium
	Hits	225
<b>F</b>	Production time	20
	Energy required	2
	Speed	9
	Size	14
	Base sight/attack radius	250
	Pain state	every 6 hit
	1 am state	25
	Attack	0,8 HPS
	Base armor	2
		Deal x1,25 damage to <i>light</i> units, 0,75 to <i>air</i>
		echanical units. Attacking other Cacodemons
		lamage same as ranged attack). Advanced
	Cacodemon has 275 attack a	
		and organ runges.
	Possible upgrades:	
	- Firepower – increase miss	iles speed.
	Baron of Hell / Hell Knight	i.
	Class	ground, medium
	Hits	350
-	Production time	40
	Energy required	4
G	Speed	9
	Size	14
		250 common
	Sight/attack radius	190 against <u>air</u>
	Pain state	every 8 hit
	Attook	50
	Attack	0,8 HPS
	Base armor	3
	Heavy ground unit with ran	ged attack. Attacking other Barons/Knights
		amage same as ranged attack). Deal x0,5

damage to <u>light</u> units, x0,75 to <u>air</u> and <u>mechanical</u> units. **Baron Of Hell** (red skin) – it advanced **Hell Knight** (white skin). **Baron Of Hell** take x0,5 damage. In **UDOOM** mode this unit spawns as **Baron Of Hell**.

# **Possible upgrades:**

- **Firepower** – increase missiles speed.





Η

# Cyberdemon

Class ground, massive
Hits 2000
Production time 90

Energy required 8
Speed 10
Size 20

Base sight/attack radius

Pain state

250 common
190 against <u>air</u>
every 15 hit

100

Attack 0,85 HPS

45 SDR

Base armor 3 Max count 1

**Requirements** *Hell Monastery* building

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 **Cyberdemon** when **Mastermind** production in progress. Don't take splash-damage from rockets and grenades. Advanced **Cyberdemon** has 275 attack (against <u>ground</u>) and sight ranges.





 $\mathbf{V}$ 

# **Spider Mastermind**

**Class** ground, massive

Hits 2000
Production time 90
Energy required 8
Speed 10
Size 35

Base sight/attack radius

Pain state

250 common
190 against <u>air</u>
every 15 hit

Attack

12
9 HPS

Base armor
3
Max count
1

**Requirements** *Hell Monastery* building

Heavy ground unit with ranged attack. Deal x0,5 damage to *buildings*, x0,75 to *mechs* and x1,5 to *light* units. You can't product **Mastermind** when **Cyberdemon** production in progress. Don't take splash-damage from rockets and grenades. Advanced **Mastermind** has 275 attack (against *ground*) and sight ranges.

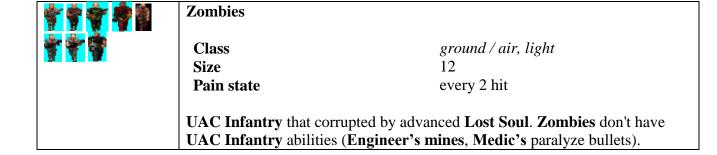
a mellion d			
diam'r.		Pain Elemental	
		Class	air, medium
		Hits	200
	В	Production time	40
		Energy required	6
		Speed	9
		Size	14
		Sight radius	250
		Attack radius	350
		Pain state	every 3 hit
			spawn Lost Soul
		Attack	0.6 HPS
		D	
		Requirements	Hell Monastery building
			l on attack or on «Action» order. Advanced Pain
		Elemental spawn advanced I	Lost Souls and spawn 3 Lost Souls after death.
<b>15.</b>		Revenant	
10.	33		
4 1	₹1	Class	ground, light
		Hits	200
	N	Production time	40
		Energy required	4
		Speed	12
		Size	13
		Base sight/attack radius	250
		Pain state	every 7 hit
		A 44 . 3	30
		Attack	0.8 HPS
		Requirements	Hell Monastery building
			ck. Deal x1,5 damage to <u>mechs</u> and x0,75 to <u>air</u>
			her <b>Revenants</b> only with melee attack (damage
			· · ·
			nced <b>Revenant</b> has 325 attack ranges.
		Possible upgrades:	
Callin		- Revenant missile upgrade	- missiles become homing.
		Mancubus	
		Class	ground, massive
	<b>T</b> 7	Hits	400
	$\mathbf{U}$	Production time	60
		Energy required	6
		Speed	6
		Size	20
		Sight radius	250
		Sight radius	300 common
		Attack radius	
		<b>D</b> • • • •	150 against <u>air</u>
		Pain state	every 4 hit
		Attack	35x2
			1.2 HPS
		Base armor	3
		Requirements	Hell Monastery building Ancient Evil upgrade
		Strong ground unit with rans	ged attack. Deal x1,5 to <i>buildings</i> , x0,5 to <i>light</i>
			echs. Cannot attack other <b>Mancubus</b> . Advanced
1		Mancubus have «pain state»	

A TOWNS NA			
Vessel	1	Arachnotron	
		Class	ground, massive
	_	Hits	350
	I	Production time	60
		Energy required	6
		Speed	9
		Size	20
		Sight/attack radius	250
		Pain state	every 4 hit
		A 441-	15
		Attack	4 HPS
		Base armor	4
		Requirements	Hell Monastery building
			Ancient Evil upgrade
		ArchVile	
	1 6	Class	ground, medium
		Hits	400
	O	11103	100
		Production time	90
		Production time	90
		Production time Energy required	90 10 15 15
		Production time Energy required Speed Size Sight radius	90 10 15
		Production time Energy required Speed Size Sight radius Attack radius	90 10 15 15
		Production time Energy required Speed Size Sight radius	90 10 15 15 250 400 every 12 hit
		Production time Energy required Speed Size Sight radius Attack radius Pain state	90 10 15 15 250 400 every 12 hit
		Production time Energy required Speed Size Sight radius Attack radius	90 10 15 15 250 400 every 12 hit 90 0.4 HPS
		Production time Energy required Speed Size Sight radius Attack radius Pain state  Attack	90 10 15 15 250 400 every 12 hit 90 0.4 HPS 15 SDR
		Production time Energy required Speed Size Sight radius Attack radius Pain state	90 10 15 15 250 400 every 12 hit 90 0.4 HPS 15 SDR 3
		Production time Energy required Speed Size Sight radius Attack radius Pain state  Attack	90 10 15 15 250 400 every 12 hit 90 0.4 HPS 15 SDR

# **SPECIAL UNITS**

Advanced **ArchVile** can resurrect dead units.

Strong ground unit with ranged attack. Deal x0,5 damage to buildings.



- 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 unain states.

	Icon		
	ICOII		
Sprite	/		Description
Sprite	hot		Description
	key		
*		Engineer	
	100	Class	ground, light
		Hits	100
	R	Production time	8
		Energy required	1
		_	13
		Speed	
		Size	12
		Sight/attack radius	220 common
			165 against <u>air</u>
		Attack	6
		Attack	1.7 HPS
		Place in transport	1
		Weak ground unit with range	ed attack. Can repair own and allies damaged
		_ =	amage to <i>light</i> units, x0,5 to <i>massive</i> and x0,25
		Possible upgrades:	<b>Engineer</b> can paralyze <u>mechs</u> when attack it. <b>ng</b> - increase the efficiency of repairing; <b>ines</b> (use «Action» order).
<del>*</del>		Possible upgrades: - Advanced repair and healing	ng - increase the efficiency of repairing;
<del>Ç</del> ı.		Possible upgrades: - Advanced repair and healing - Mines - Engineer can set Mi	ng - increase the efficiency of repairing; ines (use «Action» order).
<del>\$</del>	*	Possible upgrades: - Advanced repair and healir - Mines - Engineer can set Mi Medic Class	ng - increase the efficiency of repairing; ines (use «Action» order).  ground, light
<b>⊕</b> .	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic Class Hits	ng - increase the efficiency of repairing; ines (use «Action» order).  ground, light 100
<u>G</u> .	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic  Class Hits Production time	ng - increase the efficiency of repairing; ines (use «Action» order).  ground, light
<del>•</del>	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic  Class Hits Production time Energy required	ng - increase the efficiency of repairing; ines (use «Action» order).  ground, light 100 8 1
<b>*</b>	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic  Class Hits Production time Energy required Speed	ng - increase the efficiency of repairing; ines (use «Action» order).  ground, light 100 8 1 13
<b>4</b>	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic  Class Hits Production time Energy required	ng - increase the efficiency of repairing; ines (use «Action» order).  ground, light 100 8 1 13 12
	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic  Class Hits Production time Energy required Speed	ground, light 100 8 1 13 12 220 common
	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic  Class Hits Production time Energy required Speed Size	ground, light 100 8 1 13 12 220 common 165 against <u>air</u>
	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic  Class Hits Production time Energy required Speed Size  Sight/attack radius	ground, light 100 8 1 13 12 220 common 165 against <u>air</u> 6
	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic  Class Hits Production time Energy required Speed Size  Sight/attack radius  Attack	ground, light 100 8 1 13 12 220 common 165 against <u>air</u>
T.	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic  Class Hits Production time Energy required Speed Size Sight/attack radius  Attack Place in transport	ground, light 100 8 1 12 220 common 165 against <u>air</u> 6 1.5 HPS
	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi Medic  Class Hits Production time Energy required Speed Size Sight/attack radius  Attack Place in transport Weak ground unit with range	ground, light 100 8 1 13 12 220 common 165 against air 6 1.5 HPS 1 ed attack. Can repair own and allies damaged
	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi  Medic  Class Hits Production time Energy required Speed Size  Sight/attack radius  Attack Place in transport Weak ground unit with range biological units. Deal x1,5 dar	ground, light 100 8 1 13 12 220 common 165 against <u>air</u> 6 1.5 HPS 1 ed attack. Can repair own and allies damaged mage to <u>light</u> units, x0,5 to <u>massive</u> and x0,25 to
	T	Possible upgrades: - Advanced repair and healin - Mines - Engineer can set Mi  Medic  Class Hits Production time Energy required Speed Size  Sight/attack radius  Attack Place in transport Weak ground unit with range biological units. Deal x1,5 dar	ground, light 100 8 1 13 12 220 common 165 against air 6 1.5 HPS 1 ed attack. Can repair own and allies damaged

* *		Sergeant		
8 W	And the second	Class	ground, light	
		Hits	100	
	Y	Production time	10	
		Energy required	2	
		Speed	13	
		Size	12	
			240 common	
		Sight/attack radius	180 against <u>air</u>	
			Not advanced:	Advanced:
			- min: 9	- min: 12
		Attack	- max: 28	- mm. 12 - max: 41
		Attack	max SDR: 30	
		Dlage in two manages	1 HPS, min	1 SDR. 10
		Place in transport	1	
		Ground unit with ranged a		· — —
		<u>massive</u> units, x0,25 to <u>me</u>		
		depends from distance to tar		_
		and have more SDR. Sergea		I units into «pain state»
		more often than other units a	ttack.	
Ť		Commando		
	200	Class	ground, light	
		Hits	100	
	F	Production time	15	
		Energy required	2	
		Speed	11	
		Size	12	
			250 common	
		Sight/attack radius	220 against <u>air</u>	
			6	
		Attack	8 HPS	
		Place in transport	1	
		Ground unit with ranged attamassive and x0,25 to mechinvisibility.		•
	2	Artillery soldier		
T .				
	23	Class	ground, light	
		Hits	100	
	G	Production time	30	
		Energy required	4	
		Speed	10	
		Size	10	
			250	
		Base sight/attack radius	250 50	
		Attack		
		Dlaga in transment	0.6 HPS	
		Place in transport		
		Requirements	UAC Weapon Fa	ictory building
			_	

		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.	
	1	Major	
		Class	ground/air, light
		Hits	100
	H	Production time	20
		Energy required	4
		_	Not advanced: 9
		Speed	Advanced: 13
		Size	12
		Sight/attack radius	250
		Attack	15
		Attack	4 HPS
		Place in transport	1
		Requirements	UAC Weapon Factory building
*		BFG Marine	o <u>buildings</u> . Advanced <b>Major</b> can fly.
	3.5	Class	ground, light
		Hits	100
	$\mathbf{V}$	Production time	60
		Energy required	5
		Speed	10
		Size	12
		Sight/attack radius	250
			125
		Attack	125 SDR
			0.4 HPS
		Place in transport	1
		Requirements	UAC Weapon Factory building
		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.	

- Possible upgrades for all UAC Infantry:
   Infantry armor upgrade;
   Lightweight armor increase infantry move speed

	·	Air APC		
1480		Class	mech, ground	
•		Hits	250	
	В	Production time	25	
		Energy required	3	
		Speed Speed	22	
		Size	33	
		Sight/attack radius	250	
		Signivattack radius	6/12	
		Attack (upgrade)		
			2 HPS	
		Base transport place count	10	
		Base armor	3	
		Requirements	UAC Weapon Factory building	
		1 -	rting all ground UAC units. Advanced Air	
		APC has 14 places.		
		Possible upgrades:		
		- <b>APC turret</b> – give to APC w	eapon.	
		Ground APC		
		Class	mech, ground	
		Hits	350	
	N	Production time	25	
		Energy required	3	
		Speed	15	
		Size	15	
		Sight/attack radius	250	
		Signifattack radius	6/12	
		Attack (after upgrade)	2 HPS	
		Rose transport place count	4	
		Base transport place count	3	
		Base armor		
		Places in transport	8	
		Requirements	UAC Weapon Factory building	
			1 TIAC TOP A	
		Fast ground transport. Can transporting all ground UAC infantry.		
		Advanced <b>Air APC</b> has 6 places. Marines can attack while they in APC.		
		Possible upgrades:		
		- <b>APC turret</b> – give to APC w	reapon.	
	i	II		

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4967	4 60		
		Class	mech, ground
	_	Hits	350
	O	Production time	60
		Energy required	6
		Speed	14
		Size	16
		Sight/attack radius	275 common
			6/12
		Attack	8 HPS
		Base armor	3
		Place in transport	3
		_	IIAC Tech Center building
		Requirements	UAC Tech Center building High technologies upgrade
			riigh technologies upgrade
		Tank	
		Class	mech, ground
		Hits	400
	${f U}$	Production time	60
		Energy required	8
		Speed	10
		Size	20
		Sight/attack radius	250
			45 SDR
		Attack	0.6 HPS
		Base armor	3
		Place in transport	7
		Requirements	UAC Tech Center building
		Requirements	High technologies upgrade
		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.	

- 1	Flyer	
	Class	mech, air
_	Hits	350
Ι	Production time	60
	Energy required	8
	Speed	19
	Size	18
	Sight/attack radius	275
	A 441-	30
	Attack	2 HPS
	Base armor	3
	Dogwinomonta	UAC Tech Center building
	Requirements	High technologies upgrade
	Heavy ground unit with	ranged attack. Deal x0,5 damage to <i>ground</i> units
	and <i>buildings</i> . Advanced <b>Flyer</b> can attack in moving.	

- Possible upgrades for all UAC Mechs:
   Mech armor upgrade;
   Advanced engines increase <u>mechs</u> move speed.

# **OTHER UNITS**

Sprite	Description

# **UPGRADES**



Icon / Hot key	Time Energy Level	Description	Requirements
Q	180 4 4	Range attack upgrade  Increase ranged attacks damage.	
W	180 4 4	Unit armor upgrade Increase units armor.	
E	120 4 4	Buildings armor upgrade  Increase buildings armor.	
A	60 2 3	Melee attack upgrade  Increase melee attacks damage.	
S	120 3 2	Regeneration  Damaged units will slowly regenerate their health.	
D	60 2 4	Pain threshold  Decrease "pain state" chance.	
Z	120 3 3	Hell Eye  Lost Soul ability & Hell Eye sight radius.  In UDOOM game mod, last level of upgrade make Hell Eye invisible.	
X	120 3 3	Tower range upgrade  Increased range of defensive structures.	
C	120 2 3	Teleport upgrade  Decrease teleport cooldown.	
R	180 3 1	Hell Keep teleportation  Hell keep can teleport to any place.	

		Decay Aura	
T	120 3 2	Hell Keep will damage all enemies around. Also, this aura neutralize stun effects on own and allied units. Decay Aura deal more damage to mechanical units.	
Y	120 2 2	Hell Keep range upgrade  Increased Hell Keep view/build range.	
F	60 3 1	Demon's anger  Increased Demon's movement and attack speed.	
G	120 2 1	Firepower  Increase missiles speed for Imp, Cacodemon and Baron of Hell/Hell Knight.	
H	20 8 15	Hell power  Allow Hell Monastery upgrade units.	Hall Managtany building
V	180 10 1	Ancient evil  New buildings, units and upgrades.	Hell Monastery building
В	120 3 1	Reverse teleport  Units can teleport back to Hell Teleport.	
N	120 2 1	Revenant missile upgrade  Missiles become homing	
U	120 2 1	Hell Totem and Eye invisibility	Hell Monastery building Ancient evil upgrade
I	120 2 3	Building restoration  Damaged buildings will slowly regenerate their health.	
O	60 2 1	Free teleportation  Hell Keep can teleport on obstacles.	

J	30 1 15	Short distance teleportation  Hell Symbols, Towers, Totems and Altars can teleport to short distance.	
K	180 10 3	Invulnerability  All hell units become invulnerable for 15 seconds.	<b>Hell Altar</b> building
L	180 4 4	Built-in Hell Symbol  Additional energy for Hell Keep.	Ancient evil upgrade



Icon / Hot key	Time Energy Level	Description	Requirements
Q	180 4 4	Range attack upgrade  Increase ranged attacks damage.	
W	120 4 5	Unit armor upgrade Increase units armor.	
E	180 4 4	Buildings armor upgrade  Increase buildings armor.	
A	60 3 3	Advanced repair and healing  Increases the efficiency of repair/healing of Engineers and Medics.	
S	120 3 2	Lightweight armor Increase infantry move speed.	
D	120 2 2	APC turret Weapon for APCs.	
Z	120 3 1	Detector device  Radar and mines becomes detectors.	

	120	Turrets range upgrade	
X	3 3	Increased attack range of defensive structures.	
	120	Radar upgrade	
C	3	Increase radar scouting time and radius.	
e E e	180	<b>Command Center engines</b>	
R	3 1	Command Center gains ability to fly.	
Asc	180	Command Center turret	
T	4	Flying Command Center will be able to attack	Command Center engines upgrade
	120	Command Center range	
Y	2 2	Increased Command Center view/build range.	
10 0	<b>120</b>	Mines	
F	2 2	Engineer ability.	
	<b>60</b>	Mine-sensor	
G	60 2 1	Mine ability.	Mines upgrade
<u>≥</u> <del>&amp;</del>	180	Advanced armory	
H	<b>8 1</b>	Tech Center will be able to upgrade own units.	UAC Tech Center building
چارچ	180	High technologies	OAC Teen Center bunding
V	<b>8</b> <b>1</b>	New buildings, units and upgrades.	
	180	Missile strike	
В	<b>10</b> <b>8</b>	Missile for Rocket Launcher Station.	
4-2	120	Advanced engines	TIAC Took Contact 1 '11'
N	3 2	Increase mechs move speed.	UAC Tech Center building High technologies upgrade
	180	Mech armor upgrade	
U	4	Increase mechs armor.	

I	120 2 1	Fast rearming  Decrease Tech Center upgrade reloads time.	
O	60 2 1	Free placement  Command center will be able to land on obstacles.	
J	120 3 2	Turrets armor Additional armor for turrets.	UAC Tech Center building
K	180 4 1	Rocket turrets  Turrets can upgrade to Rocket turrets.	High technologies upgrade
L	180 4 2	Built-in generator  Additional energy for Command Center.	