

**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.

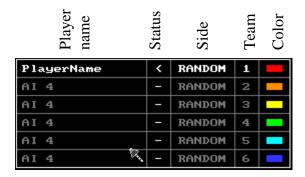
Obstacles - count of obstacles.

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* = «**C**» (computer player) or «-» (empty slot), right click here to move you on this line.

#### Status:

 $\ll$  -  $\gg$  - Empty slot;

 $\langle C \rangle$  – 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

#### Game minimap:

Minimap alarm indicators types:

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

#### *Line under minimap:*

```
Energy section – free energy level / maximum energy level;

Army section – number of all units (units + buildings).
```

#### 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;

Red – ability charges:

- UAC Rocket Launcher Station: missiles count;
- Hell Monastery: Hell Powers
- Hell Altar: Invulnerability spheres

Aqua – reload time;





#### **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, orders and hotkeys

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. (F2) hotkey will select all battle units on map.

#### Orders:

- Right click «Move» or «Move»+«Attack» (you can switch action in menu);
- «Move» (Q), «Stay» (W), «Patrol» (E), ignore enemies;
- «Move» (Q), «Stay» (W), «Patrol» (E), attack enemies;
- «Action» ( $\mathbf{Z}$ ) do some ability (if unit have it).
- «Destroy» (**Delete**) destroy selected units.
- «Cancel production» ( $\mathbf{C}$ ) abort current production (work on *Units* or *Upgrades/researches* tabs);

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.

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

Tab «Buildings»: **R T Y F G H V B N** – buildings;

Tab «Units»: **RTYFGHVBNUIO** and **Ctrl+RTYFGHVBN**—units;

Tab «*Upgrades/researches*»:

#### RTYFGHVBNUIOJKL and Ctrl + RTYFGHVBN – upgrades;

- -«Alt» draw colored rectangles and health bars above units;
- «Pause/Break» pause/continue game in network game. Client can't cancel server's pause.
- «**PrtScr**» make screenshot.

#### **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.



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

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.

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

#### **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 OPTIONS Game: DOOM 2 Game mode: Skirmish Starting base: 1 builder Show player starts: Fill empty slots: AI 4 Random skirmish

#### 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 "#" 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

Ico	on	
	ot	Description
ko		
	Hell Keep	
	Hits	3000
	Size	66
	<b>Building time</b>	75
	Base sight radius	280
	Max count	Unlimited
	Energy required	8
Township Township	Energy provided	6
		ows you to build base.
R	Possible upgrades	
4400	place;	rtation – allow <b>HK</b> to teleport to any map
		<b>₹</b> start damage enemy units around;
	- Sight radius upg	•
		tion – allow <b>HK</b> teleporting on map
	obstacles;	unow <b>HIX</b> teleporting on map
		ool – increase provided energy level.
	Hell Gate	i Cy
36 St 36 St 37 St		
The same of the sa	Hits	1500
	Size	60
<b>会会是是他对于这个</b>	<b>Building time</b>	41
	Sight radius	200
T	Max count	Unlimited
	Energy required	4
	Produce units.	
	Hell Symbol	
	Hits	200
	Size	24
	Building time	10
_20	Sight radius	200
	Max count	Unlimited
	Energy required	1
Y	Energy provided	1
	Provide energy.	
	Possible upgrades	:
	- Short distance te	

	Hell Pool	
F	Hits Size Building time Sight radius Max count Energy required Research upgrades.	1000 53 41 200 Unlimited 6
	Hell Tower	
G	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;
H	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	
V	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: tery and do right click on unit; right click to Hell Monastery building anel;
В	Hell Totem  Hits Size Building time Base sight/attack ra Max count Energy required Requirements  Advanced defense str  Possible upgrades: - Range attack upgrades: - Attack/sight radius - Short distance teles - Invisibility.	Unlimited 3 Hell Monastery building Ancient Evil upgrade ucture. Attacking like ArchVile unit. ade; supgrade;
N	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
	R	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
	T	Hits Size Building time Sight radius Max count Energy required  Produce units.	1700 66 40 200 Unlimited 4
	Y	Hits Size Building time Sight radius Max count Energy required Energy provided Provide energy.	400 42 20 200 Unlimited 2 2

	UAC Weapon Factory
F	Hits 1700 Size 62 Building time 40 Sight radius 200 Max count Unlimited Energy required 6  Research upgrades.
G	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; UAC Radar
H	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.
	G

		<b>UAC Tech Center</b>	
		UAC Tech Center	
		Hits	1700
		Size	62
			94
		Building time	
		Sight radius	200
	No.	Max count	1
	10	Energy required	10
100000	選	Requirements	UAC Weapon Factory building
	$\mathbf{V}$	Can advance units.	
<b>一</b>	<b>,</b>	Possible upgrades:	
and the same of th		- Advanced armory	- <b>Tech Center</b> will be able to upgrade
		units;	
		- Fast rearmament -	decrease <b>Tech Center</b> upgrade reloads
		time.	10
			lect unit and do right click on Tech
		Center or it icon on c	
		UAC Plasma Turret	
		Hits	400
		Size	17
		Building time	20
		Base sight/attack	250
		radius	
		Max count	Unlimited
		Energy required	2
		Requirements	UAC Weapon Factory building
	В		
		Defense structure. Att	tacking like <b>Major</b> unit.
		Possible upgrades:	
		- Range attack upgra	ade;
		- Attack/sight radius	supgrade;
		- Turrets armor;	10
		,	
		<b>UAC Rocket Launch</b>	ner Station
		Hits	500
		Size	40
		Building time	31
		Sight radius	200
	1	Max count	1
			4
		Energy required	
	N	Requirements	UAC Tech Center building
		D 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	יות פות או או אין או או או אין או
			ke. Missile strike requires " <b>Missile</b>
			sile have 250 damage and 150 <b>SDR</b> .
		_	o <u>light</u> units, x1,5 to <u>buildings</u> and x0,5 to
		<u>air</u> .	

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

### **SPECIAL BUILDINGS**

	Mine	
	Hits Size	1 5
	Base sight radius	100
	Max count	Unlimited
	Requirements	advanced <i>Engineer</i> unit
<b>⊗</b>	 Set by advanced UAC	C Engineers.
	Possible upgrades:	
	- Detectors;	
	- Mine-sensor - min	e can switch to sensor mode that provide
	300 sight ranges an	nd not explode under enemy unit (use
	«Action» order to sw	itch 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  $\langle pain\ state \rangle$  - 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	
			10	
		Attack	1 HPS	
<b>*</b>		Possible upgrades: - Melee attack upgrade; - Hell Eye – Lost Soul ca	n transform to <b>Hell Eye</b> (use «Action» order);	
W.		Class	ground, light	
		Hits	70	
	T	Production time	5	
		Energy required	1	
		_	9	
		Speed Size	12	
		Sight/attack radius	250	
		Pain state	every 3 hit	
		Attack	12	
			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 missiles speed.		

	T.D.		
	Demon		
CC	Class	around modium	
		ground, medium 150	
<b>Y</b>	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	
	Fast ground unit with melee	e attack. Cannot attack air units (except Lost	
	Soul). Advanced <b>Demon</b> has	s invisibility.	
	Possible upgrades:	·	
		Demon's movement speed and attack.	
	Cacodemon	•	
Short Short			
	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	
		25	
	Attack	0,8 HPS	
	Base armor	2	
		Deal x1,25 damage to <i>light</i> units, 0,75 to <i>air</i>	
	and massive units, x0,5 to mechanical units. Attacking other Cacodemons		
	only with melee attack (damage same as ranged attack). Advanced		
	Cacodemon has 275 attack and sight ranges.		
	D 11		
	Possible upgrades:	ilas spaad	
	- Firepower – increase miss:	nes specu.	
<b>*</b>	Baron of Hell / Hell Knight		
	Class	ground, medium	
	Hits	350	
The state of the s	Production time	40	
	Energy required	4	
G	Speed	9	
	Size	14	
	Sight/otto als madis	250 common	
	Sight/attack radius	190 against <u>air</u>	
	Pain state	every 8 hit	
	Attack	50	
		0,8 HPS	
	Base armor	3	
	• •	ged attack. Attacking other Barons/Knights	
	only with melee attack (d	amage same as ranged attack). Deal x0,5	

damage to  $\underline{light}$  units, x0,75 to  $\underline{air}$  and  $\underline{mechanical}$  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

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	1		
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
		1 am state	•
		Attack	spawn Lost Soul
			0.6 HPS
		Requirements	Hell Monastery building
		Flying unit. Spawn Lost Sou	l on attack or on «Action» order. Advanced Pain
		Elemental spawn advanced I	Lost Souls and spawn 3 Lost Souls after death.
2		Revenant	1
461	<b>4</b>	Tre venture	
3 [	27	Class	anound light
			ground, light
	N	Hits	200
	1.4	Production time	40
		Energy required	4
		Speed	12
		Size	13
		Base sight/attack radius	250
		<u> </u>	
		Pain state	every 7 hit
		Attack	30
		Tittuck	0.8 HPS
		Requirements	Hell Monastery building
			ck. Deal x1,5 damage to <i>mechs</i> and x0,75 to <i>air</i>
			ner <b>Revenants</b> only with melee attack (damage
			nced <b>Revenant</b> has 325 attack ranges.
			need <b>Revenant</b> has 323 attack ranges.
		Possible upgrades:	
Callin		- Revenant missile upgrade	- missiles become homing.
		Mancubus	
		Class	ground, massive
		Hits	400
	Ctrl	Production time	60
	+	Energy required	6
	R	_	6
	N	Speed	
		Size	20
		Sight radius	250
		Attack radius	300 common
		Attack radius	150 against <u>air</u>
		Pain state	every 4 hit
			35x2
		Attack	1.2 HPS
		Base armor	3
		Dasc armor	Hell Monastery building
		Requirements	Ancient Evil upgrade
		Strong ground unit with range	ged attack. Deal x1,5 to <i>buildings</i> , x0,5 to <i>light</i>
			echs. Cannot attack other <b>Mancubus</b> . Advanced
i de la companya de			
		<b>Mancubus</b> have «pain state»	raciet

A COMPA		Arachnotron	
	MA	Araciniotron	
		Class	ground, massive
	C41	Hits	350
	Ctrl	Production time	60
	+	Energy required	6
	T	Speed	9
		Size	20
		Sight/attack radius	250
		Pain state	every 4 hit
		A 44 o ole	15
		Attack	4 HPS
		Base armor	4
		D	Hell Monastery building
		Requirements	Ancient Evil upgrade
	1	ArchVile Class	ground, medium
		Hits	400
	Ctrl	Production time	90
	+	Energy required	10
	Ý	Speed Speed	15
	1	Size	15
		Sight radius	250
		Attack radius	400
		Pain state	every 12 hit
		1 am state	90
		Attack	0.4 HPS
		Tituen	15 SDR
		Base armor	3
			<i>Hell Altar</i> building
		Requirements	Ancient Evil upgrade
		Strong ground unit with Advanced <b>ArchVile</b> can r	ranged attack. Deal x0,5 damage to <i>buildings</i> .
		Advanced Arch vile can r	esurrect dead units.

### **SPECIAL UNITS**

**	Ctrl	Zombies	
	FG HV	Class Size	ground / air, light
A A	BN	Pain state	every 2 hit
		Requirements	Hell Military Unit building
	U UAC Infantry that corrupted by advanced Lost Soul. Zombies don UAC Infantry abilities (Engineer's mines, Medic's paralyze bullet		

- 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.

UAC ur		no <i>«pain state»</i> .	
	Icon		
Sprite	/	Description	
Sprice	hot		
	key		
P.		Engineer	
	200	Class	ground, light
		Hits	100
	R	Production time	8
		Energy required	1
		Speed	13
		Size	12
			220 common
		Sight/attack radius	165 against <i>air</i>
			6
		Attack	1.7 HPS
		Place in transport	1.7 111 5
		_	d attack Can renair own and allies democrad
		_	ed attack. Can repair own and allies damaged
			amage to <u>light</u> units, x0,5 to <u>massive</u> and x0,25. Engineer can paralyze <u>mechs</u> when attack it.
T.		Medic	
	100	Class	ground, light
		Hits	100
	T	Production time	8
		Energy required	1
		Speed	13
		Size	12
			220 common
		Sight/attack radius	165 against <i>air</i>
			6
		Attack	1.5 HPS
		Place in transport	1
		_	ed attack. Can repair own and allies damaged
			nage to <u>light</u> units, $x0.5$ to <u>massive</u> and $x0.25$ to
			<b>ledic</b> can paralyze <i>biological</i> units.
		Possible upgrades: - Advanced repair and healing - increase the efficiency of healing.	

* *	Sergeant	
1 M	Class	ground, light
	Hits	100
	Production time	10
	Energy required	2
	Speed	13
	Size	12
		240 common
	Sight/attack radius	180 against <i>air</i>
		Not advanced: Advanced:
		- min: 9 - min: 12
	Attack	- max: 28 - max: 41
		max SDR: 30 max SDR: 40
		1 HPS, min SDR: 10
	Place in transport	1
	Ground unit with ranged	attack. Deal x0,5 damage to <u>fly</u> , <u>light</u> and
		nechanical units. Damage and splash-range
		arget. Advanced <b>Sergeant</b> deal more damage
	<del>-</del>	eant's attack set Hell units into «pain state»
	more often than other units	
	Commando	
<b>7</b>		
	Class	ground, light
	Hits Production time	100
]	1 Toduction time	15
	Energy required	2
	Speed	11
	Size	12
	Sight/attack radius	250 common
	Signifactack Faulus	220 against <u>air</u>
	Attack	6
		8 HPS
	Place in transport	1
	I	tack. Deal x1,5 damage to <u>light</u> units, x0,5 to <u>echanical</u> units. Advanced <b>Commando</b> has
	invisibility.	Charles Turnica Communa 1145
	Artillery soldier	
	9	
	Class	ground, light
	Hits Production time	100
	1 Toduction time	30
	Energy required	4
	Speed	10
	Size	12
	Base sight/attack radius	250
	Attack	50
		0.6 HPS
	Place in transport	1
	Requirements	UAC Weapon Factory 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
			15
		Attack	4 HPS
		Place in transport	1
		Requirements	<b>UAC Weapon Factory</b> building
Ÿ		BFG Marine	
	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 <i>light</i> , <i>mechs</i> units and <i>buildings</i> . 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		
A STATE OF THE STA		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)		
		D	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	
		Signe attack radius	6/12	
		Attack (after upgrade)	2 HPS	
		Base transport place count	4	
		Base armor	3	
			8	
		Places in transport		
		Requirements	UAC Weapon Factory building	
		East amount Can	turn and the state of the state	
		Fast ground transport. Can transporting all ground UAC infantry.		
		Advanced <b>Air APC</b> has 6 places. Marines can attack while they in APC.		
		B 31		
		Possible upgrades:		
		- <b>APC turret</b> – give to APC w	eapon.	
	i	II		

	1	
1	Terminator	
	Class	mech, ground
	Hits	350
Ctrl	Production time	60
+	Energy required	6
R	Speed	14
	Size	16
	Sight/attack radius	275 common
		6/12
	Attack	8 HPS
	Base armor	3
	Place in transport	3
	_	UAC Tech Center building
	Requirements	High technologies upgrade
-2-8	Tank	
	Class	mech, ground
	Hits	400
Ctrl	Production time	60
+	Energy required	8
T	Speed	10
_	Size	20
	Sight/attack radius	250
		45 SDR
	Attack	0.6 HPS
	Base armor	3
	Place in transport	7
	Do autinom anta	UAC Tech Center building
	Requirements	High technologies upgrade
	Hoovy ground unit wit	h ranged attack. Deal x1,5 damage to buildings

	Heavy ground unit with ranged attack. Deal x0,5 damage to <i>ground</i> unit and <i>buildings</i> . Advanced <b>Flyer</b> can attack in moving.	
	Requirements	UAC Tech Center building High technologies upgrade
	Base armor	3
	Attack	30 2 HPS
	Sight/attack radius	275
	Size	18
$\mathbf{Y}$	Speed	19
+	Energy required	8
Ctrl	Production time	60
~ .	Hits	350
	Class	mech, air
200	Flyer	

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

		Decay Aura	
I	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 <i>mechanical</i> units.	
O	120 2 2	Hell Keep range upgrade  Increased Hell Keep view/build range.	
J	60 3 1	Demon's anger  Increased Demon's movement and attack speed.	
K	120 2 1	Firepower  Increase missiles speed for Imp, Cacodemon and Baron of Hell/Hell Knight.	
E L	20 8 15	Hell power  Allow Hell Monastery upgrade units.	II all Manage and havilding
Ctrl+R	180 10 1	Ancient evil  New buildings, units and upgrades.	Hell Monastery building
Ctrl+T	120 3 1	Reverse teleport  Units can teleport back to Hell Teleport.	
Ctrl+Y	120 2 1	Revenant missile upgrade  Missiles become homing	
Ctrl+F	120 2 1	Hell Totem and Eye invisibility	Hell Monastery building Ancient evil upgrade
Ctrl+G	120 2 3	Building restoration  Damaged buildings will slowly regenerate their health.	
Ctrl+H	60 2 1	Free teleportation  Hell Keep can teleport on obstacles.	

Ctrl+V	30 1 15	Short distance teleportation  Hell Symbols, Towers, Totems and Altars can teleport to short distance.	
Ctrl+B	180 10 3	All hell units become invulnerable for 15 seconds.	<b>Hell Altar</b> building
Ctrl+N	180 4 2	Built-in Hell Symbol  Additional energy for Hell Keep.	Ancient evil upgrade



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

	120	Turrets range upgrade	
B	3	Increased attack range of defensive structures.	
	120	Radar upgrade	
N	<b>2</b> <b>3</b>	Increase radar scouting time and radius.	
	180	Command Center engines	
U	180 3 1	Command Center gains ability to fly.	
A. M. C.	190	Command Center turret	
I	180 4 1	Flying Command Center will be able to attack	Command Center engines upgrade
	120	Command Center range	
o	2 2	Increased Command Center view/build range.	
100 to	120	Mines	
J	2 2	Engineer ability.	
K	60 2 1	Mine-sensor	Mines upgrade
		Mine ability.	
<u>⊉</u> 😥	180	Advanced armory	
L	8	Tech Center will be able to upgrade own units.	HAC Took Contou building
	180	High technologies	UAC Tech Center building
Ctrl+R	10 1	New buildings, units and upgrades.	
	180	Missile strike	
Ctrl+T	10 8	Missile for Rocket Launcher Station.	
4	120	Advanced engines	TIACITE I C. 4 I III
Ctrl+Y	3 2	Increase mechs move speed.	UAC Tech Center building High technologies upgrade
Ctrl+F	180 4 4	Mech armor upgrade	
		Increase mechs armor.	

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