

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.

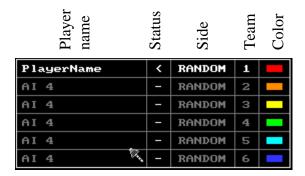
Obstacles - count of obstacles.

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:

 \ll -» – 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 - Hell or UAC.

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;

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;

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;

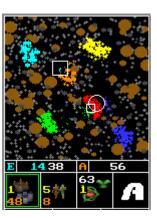
Purple - number units of this type in selected transport(s);

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.



^{*} 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

Sprite	Icon / Hot key		Description
	R	place; - Decay Aura – HK s - Sight radius upgrad - Free teleportation obstacles;	ation – allow HK to teleport to any map start damage enemy units around;
	T	Hell Gate Hits Size Building time Sight radius Max count Energy required Produce units.	1500 60 41 200 Unlimited
	Y	Hell Symbol Hits Size Building time Sight radius Max count Energy required Energy provided Provide energy. Possible upgrades: - Short distance telep	200 24 10 200 Unlimited 1 1

	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 Revenant fireballs, Cacodemon fireballs. ade; supgrade;
H	click to set destination Hell Teleport or it depend from unit pow Possible upgrades: - Teleport upgrade -	500 28 31 200 1 4 point: select Hell Teleport 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 Hell Teleport.

	Hell Monastery	
V	There is 2 methods to 1) Select Hell Monas	1000 65 100 200 Unlimited 10 Hell Pool building es for units advancing; make advance any unit: stery and do right click on unit; right click to Hell Monastery building banel;
В	Hell Totem Hits Size Building time Base sight/attack ra Max count Energy required Requirements Advanced defense str Possible upgrades: Range attack upgr Attack/sight radius Short distance tele Invisibility.	Unlimited 3 Hell Monastery building Ancient Evil upgrade ucture. Attacking like ArchVile unit. ade; s upgrade;
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

Max count Unlimited

Requirements Lost Soul unit

250

Hell Eye upgrade

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

Possible upgrades:

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

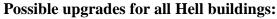
- Invisibility;

Hell Military Unit

Hits 1500
Size 70
Sight radius 200
Max count Unlimited

Produce zombies and Hell units.

Requirements advanced *Lost Soul* unit *UAC Military Unit* building



- 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 a Sight radius upgrawhen it on ground; - Command Center (attacking like Major	4000 66 80 280 Unlimited 8 6 syou 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	UAC Military Unit Hits Size Building time Sight radius Max count Energy required Produce units.	1700 66 40 200 Unlimited 4
	Y	UAC Generator Hits Size Building time Sight radius Max count Energy required Energy provided Provide energy.	400 42 20 200 Unlimited 2 2

		UAC Weapon Facto	90 4 7
		UAC Weapon Facto	ry
		Hits	1700
D. C.	28 70		
		Size	62
		Building time	40
	Santa	Sight radius	200
		Max count	Unlimited
	${f F}$	Energy required	6
		Research upgrades.	
			4
		UAC Chaingun Tur	ret
		Hits	400
		Size	17
		Building time	15
		Base sight/attack ra	ndius 250
		Max count	Unlimited
		Energy required	2
a the same of the	1.1	Energy required	12
	S 11 5	Attack	4 HPS
			4 NP3
	G	Defense structure. At	eacking like Mastermind unit.
		Possible upgrades:	
		- Range attack upgra	ade;
	- Attack/sight radius upgrade;		
		- Turrets armor;	
		UAC Radar	
		Hits	500
		Size	35
		Building time	31
	1	Base sight radius	200
TOTAL TOTAL		Max count	1
None of 1		Energy required	2
	Н	Reveals map. To reveright click on this area	eal any map area – select Radar and do a.
		Possible upgrades:	
		- Detectors;	
			oransa radar coouting time and radius
		- Kauar upgraue - In	crease radar scouting time and radius.

	UAC Tech Center	
V	units; - Fast rearmament - time.	1700 62 94 200 1 10 UAC Weapon Factory building - Tech Center will be able to upgrade decrease Tech Center upgrade reloads lect unit and do right click on Tech ontrol panel.
В	UAC Plasma Turret Hits Size Building time Base sight/attack radius Max count Energy required Requirements	400 17 20 250 Unlimited 2 UAC Tech Center building tacking like Major unit.
N	strike" research. Miss	see Station 500 40 31 200 1 4 UAC Tech Center building see. Missile strike requires "Missile sile have 250 damage and 150 SDR. Sile have 250 to buildings and x0,5 to

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

SPECIAL BUILDINGS

	Mine	
	Hits Size	1 5
	Base sight radius	100
	Max count	Unlimited
	Requirements	advanced <i>Engineer</i> unit
⊗	 Set by advanced UAC	C Engineers.
	Possible upgrades:	
	- Detectors;	
	- Mine-sensor - min	e can switch to sensor mode that provide
	300 sight ranges an	d not explode under enemy unit (use
	«Action» order to swi	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	T 40 T	
		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
A	A	Possible upgrades: - Melee attack upgrade; - Hell Eye – Lost Soul ca	n transform to Hell Eye (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 Imps only with melee attack (damage dvanced Imp has 2 HPS.
		Possible upgrades: - Firepower – increase mi	issiles speed.

	l n	
原	Demon	
	Class	around modium
		ground, medium 150
\mathbf{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 Demon has	
	Possible upgrades:	, 11, 12, 21, 11, 11, 11, 11, 11, 11, 11
		Demon's movement speed and attack.
	Cacodemon	= a mo , amain apara ana anara.
Said Said		
	Class	air, medium
	Hits	225
F	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
	Attack	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			
dimit.	- 100 - 100 miles	Pain Elemental	
		Class	air, medium
		Hits	200
	В		40
		Production time	
		Energy required	6
		Speed	9
		Size	14
		Sight radius	250
		Attack radius	350
		Pain state	every 3 hit
		r am state	•
		Attack	spawn Lost Soul
			0.6 HPS
		Requirements	Hell Monastery building
		Flying unit. Spawn Lost Sou	I on attack or on «Action» order. Advanced Pain
		Elemental spawn advanced I	Lost Souls and spawn 3 Lost Souls after death.
2 %		Revenant	
961		Revenant	
1 6	27	Clare	1 1 1 .
		Class	ground, light
	N	Hits	200
	1	Production time	40
		Energy required	4
		Speed	12
		Size	13
		Base sight/attack radius	250
		<u> </u>	
		Pain state	every 7 hit
		Attack	30
		Attack	0.8 HPS
		Requirements	Hell Monastery building
			ck. Deal x1,5 damage to <i>mechs</i> and x0,75 to <i>air</i>
			ner Revenants only with melee attack (damage
			nced Revenant has 325 attack ranges.
			niced Revenant has 323 attack ranges.
		Possible upgrades:	
		- 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
		Dast al IIIVI	
		Requirements	Hell Monastery building Ancient Evil upgrade
			ged attack. Deal x1,5 to <i>buildings</i> , x0,5 to <i>light</i>
			echs. Cannot attack other Mancubus. Advanced
		Mancubus have «pain state»	
	1		· · · · · · · · · · · · · · · · · · ·

A-60-0-A		Anachnatuan	
Land.	MA	Arachnotron	
		Class	ground, massive
	Q. 1	Hits	350
	Ctrl	Production time	60
	+	Energy required	6
	T	Speed	9
		Size	20
		Sight/attack radius	250
		Pain state	every 4 hit
		Attacly	15
		Attack	4 HPS
		Base armor	4
		D	Hell Monastery building
		Requirements	Ancient Evil upgrade
W	1	ArchVile Class	ground, medium
			e
	Ctrl	Hits Production time	400 90
	+		
	\mathbf{Y}	Energy required	10 15
	ı	Speed Size	15
			250
		Sight radius Attack radius	400
		Pain state	
		I am state	every 12 hit 90
		Attack	0.4 HPS
		Attack	15 SDR
		Base armor	3
		Dasc ai moi	<i>Hell Altar</i> building
		Requirements	Ancient Evil upgrade
			incient Din applace
			ranged attack. Deal x0,5 damage to buildings.

SPECIAL UNITS

**	Ctrl	Zombies	
	F G	Class	ground / air, light
**	H V B N	Size Pain state	every 2 hit
	DI	Requirements	Hell Military Unit building
	U	UAC Infantry that corrupted by advanced Lost Soul. Zombies don't have UAC Infantry abilities (Engineer's mines, Medic's paralyze bullets).	

- 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

	key R	Engineer Class Hits Production time Energy required	ground, light
	R	Hits Production time	100
	R	Hits Production time	100
	R	Production time	
			10
			10
		Speed	13
		Size	12
		Size	220 common
		Sight/attack radius	
			165 against <u>air</u>
		Attack	6 1.7 LIDS
		Discontinuo	1.7 HPS
		Place in transport	1 ed attack. Can repair own and allies damage
<u>.</u>		Possible upgrades: - Advanced repair and healir - Mines - Engineer can set Mi Medic	ng - increase the efficiency of repairing; ines (use «Action» order).
7	W.	Class	ground light
		Class	ground, light
	\mathbf{T}	Hits	100
	-	Production time	10
		Energy required	1
		Speed	13
		Size	12
		Sight/attack radius	220 common
		0	165 against <u>air</u>
		Attack	6
			1.5 HPS
		Place in transport	1
			ed attack. Can repair own and allies damage
		·	mage to <u>light</u> units, x0,5 to <u>massive</u> and x0,25 (Medic can paralyze <u>biological</u> units.
		Possible upgrades:	ng - increase the efficiency of healing.

Serg Cla Hits	cant		
TT:4	SS	ground, light	
Total	S	100	
Y Pro	duction time	10	
Ene	rgy required	2	
Spe	ed	13	
Size	,	12	
Sig	nt/attack radius	240 common	
Sign	it/attack radius	180 against <u>air</u>	
		Not advanced:	Advanced:
		- min: 9	- min: 12
Atta	ack	- max: 28	
		max SDR: 30	
			n SDR: 10
Plac	ce in transport	1	
Grov	nd unit with ranged a	ttack. Deal x0,5 d	lamage to <u>fly</u> , <u>light</u> and
			amage and splash-range
			geant deal more damage
			ll units into «pain state»
more	often than other units a	ttack.	
Com	mando		
Cla	22	ground, light	
Hits		100	
	duction time	15	
	rgy required	2	
Spe		_ 11	
Size		12	
		250 common	
Sigi	nt/attack radius	220 against <i>air</i>	
		6	
Atta	ack	8 HPS	
Place	ce in transport	1	
<u>mass</u>	<u>ive</u> and x0,25 to <u>med</u>		age to <u>light</u> units, x0,5 to vanced Commando has
	ibility.		
•	lery soldier		
Cla		ground, light	
G Hits		100	
110	duction time	30	
	rgy required	4	
Spe		10	
Size		12	
Bas	e sight/attack radius	250	
Atta	ack	50	
		0.6 HPS	
	ce in transport	1	4 1 11 11
Req	uirements	UAC Weapon F	actory 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 Artillery soldier 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 Major 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 BFG Marine 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:		
		- APC turret – 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	
			A TIAC TOP A	
		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 w	reapon.	
	i			

	· · · · · · · · · · · · · · · · · · ·	1	
43)	1	Terminator	
	A	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
		•	TIACITE LO 4 1 111
		Requirements	UAC Tech Center building
		1	High technologies upgrade
		Tank	
-		Class	mech, ground
		Hits	400
	Ctrl	Production time	60
	+	Energy required	8
	T	Speed	10
		Size	20
		Sight/attack radius	250
		Attack	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>building</u> and x0,5 damage to <u>light</u> units. Cannot attack <u>air</u> units. Cannot attack units closer than 45 pixels. Advanced Tank has 325 attack ranges.	

	Heavy ground unit with ranged attack. Deal x0,5 damage to <i>ground</i> units and <i>buildings</i> . Advanced Flyer 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.	
Т	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.	
Н	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.	
В	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 <u>mechanical</u> 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.	
B L	20 8 15	Hell power Allow Hell Monastery upgrade units.	Holl Monastowy building
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
Ctrl+G	120 2 3	Building restoration Damaged buildings will slowly regenerate their health.	Ancient evil upgrade
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.	

	180	Invulnerability	
Ctrl+B	180 10 3	All hell units become invulnerable for 15 seconds.	Hell Altar building
	180	Built-in Hell Symbol	Ancient evil upgrade
Ctrl+N	4 2	Additional energy for Hell Keep.	



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.	
B	120 3 3	Turrets range upgrade Increased attack range of defensive structures.	

	120	Radar upgrade	
N	2 3	Increase radar scouting time and radius.	
U	180 3 1	Command Center engines	
		Command Center gains ability to fly.	
Ann	100	Command Center turret	
I	180 4 1	Flying Command Center will be able to attack	Command Center engines upgrade
0	120 2 2	Command Center range	
		Increased Command Center view/build range.	
\$ 59	120	Mines	
J	2	Engineer ability.	
K	60	Mine-sensor	Mines upgrade
	<u>1</u>	Mine ability.	
<u></u>	180 8 1	Advanced armory	
		Tech Center will be able to upgrade own units.	
_عراه	190	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.	
<u> </u>	120	Advanced engines	
Ctrl+Y	3 2	Increase mechs move speed.	UAC Tech Center building
	180	Mech armor upgrade	High technologies upgrade
Ctrl+F	4	Increase mechs armor.	
	120	Fast rearming	
Ctrl+G	2 1	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.	