

**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.

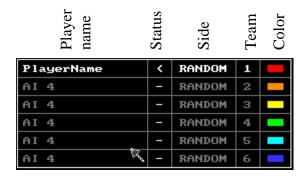
Obstacles - count of obstacles.

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;

 $\langle C \rangle$  – 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.
- «Right click action» (X) switch right click action;
- «Cancel production» (C) abort current production (work on Units or Upgrades/researches tabs);

MHP
A5P
A S

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.

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.

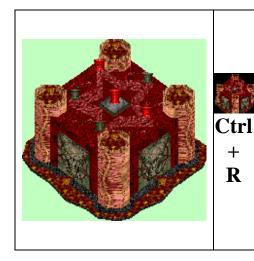
# **BUILDINGS**

# HEDI

	Icon		
Sprite	/ Hot	Description	
	hot key		
	Rey	Hell Keep	
		<b>F</b>	
		Hits	3000
		Size	66
		<b>Building time</b>	83
		Base sight radius	280
		Max count	Unlimited
16 (10)	A COLORA	Energy required	8
		Energy provided	6
		Main building. Allow	s you to build base.
	R	Possible upgrades:	
		- Hell Keep teleporta	ation – allow <b>HK</b> to teleport to any map
		place;	
		•	start damage enemy units around;
		- Sight radius upgrad	
			n – allow <b>HK</b> teleporting on map
		obstacles;	
		Hell Gate	– increase provided energy level.
		Hell Gate	
22 85 29 85 25 85	Greuntenen	Hits	1500
	6.000 A	Size	60
	And the	Building time	41
		Sight radius	200
	$\mathbf{T}$	Max count	Unlimited
	•	Energy required	4
		Produce units.	
		Hell Symbol	
		Hits	200
		Size	24
		Building time	10
200	A8-1	Sight radius	200
		Max count	Unlimited
		<b>Energy required</b>	1
	Y	Energy provided	1
		Provide energy.	
		Possible upgrades:	
		- Short distance telep	portation;

	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 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	1) Select Hell Monas	make advance any unit: tery and do right click on unit; right click to Hell Monastery building
В	Hell Totem  Hits Size Building time Base sight/attack ra Max count Energy required Requirements  Advanced defense strue Possible upgrades: Range attack upgra Attack/sight radius Short distance telep	Unlimited 3 Hell Monastery building Ancient Evil upgrade  acture. Attacking like ArchVile unit.  ade; upgrade;
N	Hell Altar  Hits Size Building time Sight radius Max count Energy required Requirements  Cast Invulnerability  Possible upgrades: - Invulnerability- cha	



# **Hell Fortress**

+

R

Hits 3000 Size 86 **Building time** 93 Sight radius 250 Max count 1 **Energy required** 12 **Energy provided** 4

Requirements Hell Monastery building

Allowing upgrade production buildings.

# **SPECIAL BUILDINGS**

**Hell Eye** Base sight radius 250 Max count Unlimited Lost Soul unit **Requirements** Hell Eve 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 70 Size Sight radius 200 Unlimited Max count

advanced Lost Soul unit Requirements UAC Military Unit building

Produce zombies and Hell units.

# 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 80 280 Unlimited 8
	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 Factor	PATA.
		UAC Weapon racio	ry
and the second s		_ 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.	
		UAC Chaingun Tur	ret
		Hits	400
		Size	17
		<b>Building time</b>	15
		Base sight/attack ra	ndius 250
	55.55	Max count	Unlimited
		<b>Energy required</b>	2
	a map	_	12
		Attack	4 HPS
	$\boldsymbol{C}$		
	G	Defense structure. Attacking like <b>Mastermind</b> unit.	
		Possible upgrades:	
		- Range attack upgra	ada.
		- Attack/sight radius	
		- Turrets armor;	s upgrade,
		- Turrets armor,	
		UAC Radar	
		Hits	500
		Size	35
		Building time	31
		_	
		Base sight radius	200
Otto Otto		Max count	1
A Discount of the Lorentz of the Lor	No.	Energy required	2
No. of the last of	Н	Reveals map. To reveright click on this area	eal any map area – select <b>Radar</b> and do a.
		Dossible unavedes	
		Possible upgrades: - Detectors;	
			orace rader constina time and radius
		- Mauar upgrade - In	crease radar scouting time and radius.

	<b>UAC Tech Center</b>	
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 cacking like Major unit.
N	strike" research. Miss	seer Station  500 40 31 200 1 4 UAC Tech Center building  te. Missile strike requires "Missile sile have 250 damage and 150 SDR. light units, x1,5 to buildings and x0,5 to

I	THE CIP I AM	
	UAC Rocket Turret	
Ctrl + T	Hits Size Building time Base sight/attack radius Max count Energy required Requirements  Defense structure. Attacking HPS.  Possible upgrades:	500 17 31 250 common 190 against <u>air</u> Unlimited 4 <i>UAC Tech Center</i> building <i>Rocket turrets</i> upgrade g like <b>Cyberdemon</b> unit with 0,6
Ctrl + R	- Range attack upgrade; - Attack/sight radius upgra - Turrets armor;  UAC Nuclear Plant  Hits Size Building time Sight radius Max count Energy required Energy provided Requirements  Allowing upgrade production	3000 89 3193 200 1 12 4 <i>UAC Tech Center</i> building

# SPECIAL BUILDINGS

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

	T	I			
	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		
			10		
		Attack	1 HPS		
<b>1</b>	-	Possible upgrades: - Melee attack upgrade; - Hell Eye – Lost Soul car	n transform to <b>Hell Eye</b> (use «Action» order);		
N.	2	Class	ground, light		
		Hits	70		
	T	Production time	5		
		Energy required	1		
		Speed Speed	9		
		Size	12		
		Sight/attack radius	250		
		Pain state	every 3 hit		
			12		
		Attack	1 HPS		
		Weak ground unit with ranged attack. Deal x0,5 damage to <u>air</u> and <u>mechanical</u> units. Attacking other <b>Imps</b> only with melee attack (damage same as ranged attack). Advanced <b>Imp</b> has 2 HPS.  Possible upgrades: - Firepower – increase missiles speed.			

	Demon		
( C	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	
	Fast ground unit with melee	e attack. Cannot attack <u>air</u> units (except Lost	
	Soul). Advanced <b>Demon</b> has		
	Possible upgrades:	<b>3</b>	
		Demon's movement speed and attack.	
XXX	Cacodemon	1	
Sant's			
	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	
		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	
	only with melee attack (damage same as ranged attack). Advanced		
	Cacodemon has 275 attack and sight ranges.		
	Possible upgrades:		
	- Firepower – increase miss	iles speed.	
<b>*</b>	Baron of Hell / Hell Knight	t .	
	Class	ground, medium	
	Hits	350	
<b>%</b>	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	
	Auack	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			
diameter)		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 <b>Lost Sou</b>	I on attack or on «Action» order. Advanced Pain
		<b>Elemental</b> spawn advanced <b>I</b>	Lost Souls and spawn 3 Lost Souls after death.
28		Revenant	1
961		Revenant	
3 5	27	Class	
		Class	ground, light
	N	Hits	200
	1.4	Production time	40
		Energy required	4
		Speed	12
		Size	13
		Base sight/attack radius	250
		S	
		Pain state	every 7 hit
		Attack	30
		Tittuch	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
		ŭ .	nced <b>Revenant</b> has 325 attack ranges.
			need <b>Revenant</b> has 323 attack ranges.
		Possible upgrades:	
GRIPS.	40	- Revenant missile upgrade	- missiles become noming.
		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
			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
1		Mancubus have «pain state»	

A.(20).4		A L 4		
The state of the s	MA	Arachnotron		
		Class	ground, massive	
		Hits	350	
	Ctrl	Production time	50	
	+	Energy required	6	
	T	Speed	9	
		Size	20	
		Sight/attack radius	250	
		Pain state	every 4 hit	
		A 441-	15	
		Attack	4 HPS	
		Base armor	4	
		Dogwinom on to	Hell Monastery building	
		Requirements	Ancient Evil upgrade	
		ranges against <u>air</u> .	chnotrons. Advanced Arachnotron has 350 attack	
*	A	ArchVile		
	1	Class	ground, medium	
	C41	Hits	400	
	Ctrl	Production time	90	
	+	Energy required	10	
	Y	Speed	15	
		Size	15	
		Sight radius	250	
		Attack radius	400	
		Pain state	every 12 hit	
			90	
		Attack	0.4 HPS	
			15 SDR	
		Base armor	3	
		Requirements	<i>Hell Altar</i> building	
		Requirements	Ancient Evil upgrade	
		Strong ground unit with ranged attack. Deal x0,5 damage to <u>buildi</u> Advanced <b>ArchVile</b> can resurrect dead units.		

# **SPECIAL UNITS**

**	Ctrl	Zombies	
	F G H V	Class Size	ground / air, light 12
4 2	BN	Pain state	every 2 hit
		Requirements	Hell Military Unit building
	U		ed by advanced <b>Lost Soul</b> . <b>Zombies</b> don't have <b>ngineer's mines</b> , <b>Medic's</b> 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

Sprite	Icon / hot key	Description	
*		Engineer	
	4	Class	ground, light
		Hits	100
	R	Production time	10
		Energy required	1
		Speed	13
		Size	12
		Size	
		Sight/attack radius	220 common
			165 against <u>air</u>
		Attack	6
			1.7 HPS
		Place in transport	1
a a	<u> </u>	Possible upgrades:	I Engineer can paralyze <u>mechs</u> when attack it.  ng - increase the efficiency of repairing; ines (use «Action» order).
,	1	- CI	
		Class	ground, light
	$\mathbf{T}$	Hits	100
	•	Production time	10
		Energy required	1
		Speed	13
		Size	12
		Sight/attack radius	220 common
		Signivatiack radius	165 against <i>air</i>
		A 44 3	6
		Attack	1.5 HPS
		Place in transport	1
		_	ed attack. Can repair own and allies damage
			mage to <i>light</i> units, $x0.5$ to <i>massive</i> and $x0.25$ to
		1	<b>Iedic</b> can paralyze <u>biological</u> units.
		Possible upgrades:	
		Possible upgrades:	ng - increase the efficiency of hea

<u>.</u>	Sergeant	
	Sergeant	
71	Class	ground, light
w.	Hits	100
Y	Production time	10
	Energy required	2
	Speed	13
	Size	12
	Sight/attack radius	240 common
		180 against <u>air</u>
		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
		ttack. Deal x0,5 damage to <u>fly</u> , <u>light</u> and
		echanical units. Damage and splash-range
		get. Advanced <b>Sergeant</b> deal more damage
		ant's attack set Hell units into «pain state»
	more often than other units a	ttack.
Ť	Commando	
22	Class	ground, light
	Hits	100
$\mathbf{F}$	Production time	15
	Energy required	2
	Speed	11
	Size	12
	C'alat da al callo	250 common
	Sight/attack radius	220 against <u>air</u>
	Add	6
	Attack	8 HPS
	Place in transport	1
	_	ack. Deal x1,5 damage to <u>light</u> units, x0,5 to <u>hanical</u> units. Advanced <b>Commando</b> has
<b>P</b>	Artillery soldier	
23	Class	ground, light
	Hits	100
G	Production time	30
	Energy required	4
	Speed Speed	10
	Size	12
	Base sight/attack radius	250
		50
	Attack	0.6 HPS
	Place in transport	1
	Requirements	UAC Weapon Factory building
	1 1	

	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.	
H	_	ground/air, light 100 20 4 Not advanced: 9 Advanced: 13 12 250 15 4 HPS 1 UAC Weapon Factory building attack. Deal x1,5 damage to mechs, x0,5 buildings. Advanced Major can fly (use
V		ground, light 100 60 5 10 12 250 125 125 SDR 0.4 HPS 1 UAC Weapon Factory building ck. Deal x0,5 damage to light, mechs units G Marine has 275 attack and sight ranges.

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

	- T	Air APC		
a Allaha		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	
		Base transport place count	4	
			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		

Class mech, ground Hits 350 Production time 60 Energy required 6 Speed 14 Size 16 Sight/attack radius 275 common Attack 8 HPS Base armor 3 Place in transport 3  Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank Class mech, ground Hits 400 Production time 60 Energy required 8 To Speed 10 Size 20 Sight/attack radius 250 Attack 45 SDR Attack 45 SDR Attack 45 SDR O.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building and x0,5 damage to light units. Cannot attack air units. Cannot attack		T	
Ctrl + R Production time 60 Energy required 6 Speed 14 Size 16 Sight/attack radius 275 common Attack 8 HPS Base armor 3 Place in transport 3  Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank Class mech, ground Hits 400 Production time 60 Energy required 8 Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building High technologies upgrade	1	Terminator	
Ctrl + R Speed 14 Size 16 Sight/attack radius 275 common Attack 8 HPS Base armor 3 Place in transport 3  Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank Ctrl + Hits 400 Production time 60 Energy required 8 Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade		Class	mech, ground
Ctrl + Broduction 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 WAC Tech Center building High technologies upgrade Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank  Ctrl + Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade Heavy ground unit with ranged attack. Deal x1,5 damage to building High technologies upgrade			•
+ R Speed 14 Size 16 Sight/attack radius 275 common Attack 8 HPS Base armor 3 Place in transport 3 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank  Class mech, ground Hits 400 Production time 60 Production time 60 Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building High technologies upgrade	Ctrl		
R Speed Size Sight/attack radius Sight/attack radius Sight/attack radius Sight/attack radius Sight/attack radius Size Sight/attack Size Size Sight/attack Size Sight/attack Size Size Sight/attack Size Size Sight/attack Size Size Size Size Size Size Size Size	+		
Size 16 Sight/attack radius 275 common Attack 8 HPS Base armor 3 Place in transport 3  Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank  Class mech, ground Hits 400 Production time 60 Production time 60 Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 45 SDR Attack 45 SDR Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building	R		
Sight/attack radius 275 common Attack 8 HPS Base armor 3 Place in transport 3  Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank  Class mech, ground Hits 400 Production time 60 Energy required 8 Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building		_	
Attack 8 HPS  Base armor 3 Place in transport 3  Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (ne advanced - like Commando/advanced like Mastermind).  Tank  Class mech, ground Hits 400 Production time 60 Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building			
Requirements  Base armor Place in transport  Requirements  UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (ne advanced - like Commando/advanced like Mastermind).  Tank  Class  mech, ground Hits  400  Production time 60 Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport Requirements  UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building			
Base armor 3 Place in transport 3  Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank  Class mech, ground Hits 400 Production time 60 + Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building		Attack	
Place in transport 3 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank  Class mech, ground Hits 400 Production time 60 Production time 8 Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building		Rase armor	
Requirements  UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank  Class mech, ground  Hits 400  Production time 60  Energy required 8  Speed 10  Size 20  Sight/attack radius 250  Attack 0.6 HPS  Base armor 3  Place in transport 7  Requirements  UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building			
Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank  Class mech, ground Hits 400 Production time 60 Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building		Trace in transport	
Heavy ground unit with ranged attack. Attacking with chain gun (no advanced - like Commando/advanced like Mastermind).  Tank  Class mech, ground Hits 400 Production time 60 Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 45 SDR O.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building		Requirements	UAC Tech Center building
advanced - like Commando/advanced like Mastermind).  Tank  Class mech, ground Hits 400 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 High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building		Requirements	High technologies upgrade
Ctrl Production time 60 + Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building		Тапк	
Ctrl Production time 60 + Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building			
Ctrl		Clace	mach ground
+ Energy required 8 T Speed 10 Size 20 Sight/attack radius 250 Attack 45 SDR 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building			· ·
T Speed 10 Size 20 Sight/attack radius 250 Attack 45 SDR 0.6 HPS Base armor 3 Place in transport 7 Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building	Ctrl	Hits	400
Size Sight/attack radius 250 Attack 45 SDR 0.6 HPS Base armor Place in transport Requirements UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building		Hits Production time	400 60
Sight/attack radius  Attack  Attack  Base armor Place in transport  Requirements  UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building	+	Hits Production time Energy required	400 60 8
Attack  Attack  0.6 HPS  Base armor  Place in transport  Requirements  UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building	+	Hits Production time Energy required Speed	400 60 8 10
Base armor Place in transport Requirements  UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building	+	Hits Production time Energy required Speed Size	400 60 8 10 20
Base armor Place in transport Requirements  UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building	+	Hits Production time Energy required Speed Size Sight/attack radius	400 60 8 10 20 250
Place in transport Requirements  UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building	+	Hits Production time Energy required Speed Size Sight/attack radius	400 60 8 10 20 250 45 SDR
Requirements  UAC Tech Center building High technologies upgrade  Heavy ground unit with ranged attack. Deal x1,5 damage to building	+	Hits Production time Energy required Speed Size Sight/attack radius Attack	400 60 8 10 20 250 45 SDR 0.6 HPS
Heavy ground unit with ranged attack. Deal x1,5 damage to building	+	Hits Production time Energy required Speed Size Sight/attack radius Attack Base armor	400 60 8 10 20 250 45 SDR 0.6 HPS 3
	+	Hits Production time Energy required Speed Size Sight/attack radius Attack Base armor Place in transport	400 60 8 10 20 250 45 SDR 0.6 HPS 3
units closer than 45 pixels. Advanced <b>Tank</b> has 325 attack ranges.	+	Hits Production time Energy required Speed Size Sight/attack radius Attack Base armor Place in transport	400 60 8 10 20 250 45 SDR 0.6 HPS 3 7 UAC Tech Center building

	Heavy ground unit with ranged attack. Deal x0,5 damage to <i>ground</i> u 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**

# Hell

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.	
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.	
(Aug Shape)	100	Hell Keep range upgrade	
o	120 2 2	Increased Hell Keep view/build range.	
		Demon's anger	
J	60 3 1	Increased Demon's movement and attack speed.	
		Firepower	
	120		
K	2 1	Increase missiles speed for Imp, Cacodemon and Baron of Hell/Hell Knight.	
	20	Hell power	
L	8 15	Allow Hell Monastery upgrade units.	II all Managtany building
1	100	Ancient evil	Hell Monastery building
Ctrl+R	180 10 1	New buildings, units and upgrades.	
Yana		Reverse teleport	
Ctrl+T	120 3 1	Units can teleport back to Hell Teleport.	
<b>***</b> -e.		Revenant missile upgrade	
Ctrl+Y	120 2 1	Missiles become homing	
		Hell Totem and Eye invisibility	
Ctrl+F	120 2 1		Hell Monastery building Ancient evil upgrade
	130	<b>Building restoration</b>	meient evii upgrade
Ctrl+G	120 2 3	Damaged buildings will slowly regenerate their health.	
	<b>60</b>	Free teleportation	
Ctrl+H	60 2 1	Hell Keep can teleport on obstacles.	
	30	Short distance teleportation	
Ctrl+V	30 1 15	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
× 42	180	Built-in Hell Symbol	Ancient evil upgrade
Ctrl+N	4 3	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.	
В	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.	
2.m.c.	190	Command Center turret	
I	180 4 1	Flying Command Center will be able to attack	Command Center engines upgrade
O	120 2 2	Command Center range	
		Increased Command Center view/build range.	
\$ 50 mg	120	Mines	
J	<b>2</b> <b>2</b>	Engineer ability.	
	60	Mine-sensor	Mines upgrade
K	1	Mine ability.	
<u> </u>	180 8 1	Advanced armory	
		Tech Center will be able to upgrade own units.	
عراه	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	
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	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 3	Built-in generator  Additional energy for Command Center.	