# API Documentation

## API Documentation

## December 6, 2014

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Variables Module combat

## 1 Module combat

### 1.1 Functions

combat(ship1, ship2)

Do a battle between two ships.

Parameters

ship1: A ship built with the class Ship.

(type=Object of class Ship.)

ship2: A ship built with the class Ship.

(type=Object of class Ship.)

### 1.2 Variables

Name	Description
package	Value: None

Class CrewMember Module crewMember

## 2 Module crewMember

#### 2.1 Variables

Name	Description
package	Value: None
divisionTime	Value: 25
showShipState	Value: True

#### 2.2 Class CrewMember



Class which allow you to monitor each crewman.

#### 2.2.1 Methods

init(self, listInfos, room, ship)		
xinit() initializes x; see help(type(x)) for signature		
Parameters		
room: Room in which is the crewman.		
(type=Object of the class Room.)		
Overrides: objectinit		

### initPosition(self)

```
repr__(self)
repr(x)
Overrides: object.__repr__ extit(inherited documentation)
```

getLvlPiloting(self)

 $\mathbf{getLvlEngines}(self)$ 

 $\mathbf{getLvlShields}(self)$ 

 ${\bf getLvlWeaponControl}(self)$ 

 $\mathbf{getLvlRepair}(self)$ 

Class CrewMember Module crewMember

getLvlCombat(self)

getRace(self)

getRoom(self)

**setRoom**(self, room)

getHP(self)

getPosition(self)

isInMovement(self)

goToRoom(self, nb)

setInMovement(self, nb, coords)

 $\mathbf{getRoomGoal}(self)$ 

 $\mathbf{getCoordsGoal}(\mathit{self})$ 

#### movementAI(self)

Determine if the crewman should go to another room. If so, it put the crewman in movement.

#### manningPointsAI(self, room)

Evaluate the importance of manning the system in the room.

#### **Parameters**

room: Room where is the system that we want to evaluate.

(type=Object of the class Room.)

### Return Value

The points associated with the importance of manning the system.

(type=Integer.)

#### continueMovement(self)

At each tick of the clock this function is called to monitor the travel of the crewman.

#### determineFastestWay(self, graph, position, currentRoom)

The crewman is already set to go to a certain room/position and this function determine the fastest way.

Class CrewMember Module crewMember

```
fastestWay(self, graph, position, currentRoom)
     moveTo(self, goal)
     getPercentageRepair(self)
     Percentage of repair done per real second.
     getPercentageExtinction(self)
     Percentage of extinction of fire per real second.
     doDamages(self, nb)
     fireDamages(self, nbFires)
     suffocation(self)
     isDead(self)
     getDamages(self)
     getMovement(self)
     addXpPiloting(self)
     addXpEngines(self)
     addXpShields(self)
     addXpWeaponControl(self)
     addXpRepair(self)
     addXpCombat(self)
     loseExperience(self, percentage)
Inherited from object
```

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(),
\_setattr\_(), \ \_sizeof\_(), \ \_str\_(), \ \_subclasshook\_()
```

#### 2.2.2 Properties

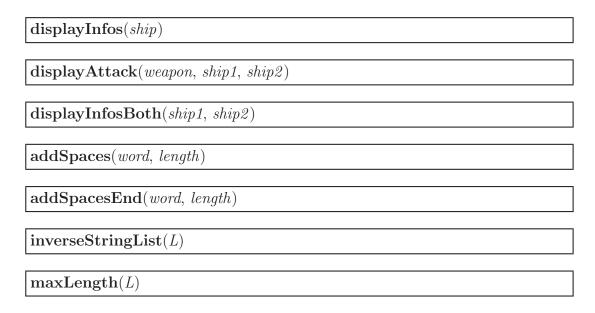
Class CrewMember Module crewMember

Name	Description
Inherited from object	
class	

Class InfosBoth Module displayShip

## 3 Module displayShip

### 3.1 Functions



### 3.2 Variables

Name	Description
_package_	Value: None

### 3.3 Class InfosBoth

Class InfosBoth Module displayShip

#### 3.3.1 Methods

 $\_$ init $\_$ (self, L)

 $x.\_init\_(...)$  initializes x; see help(type(x)) for signature

### Return Value

new empty list

Overrides: object.\_\_init\_\_ extit(inherited documentation)

 $\_$ repr $\_$ (self)

repr(x)

Overrides: object.\_repr\_ extit(inherited documentation)

maxL1(self)

| lenColorsString(self, s)

### Inherited from list

```
__add__(), __contains__(), __delitem__(), __delslice__(), __eq__(), __ge__(), __getattribute__(), __getitem__(), __getslice__(), __iadd__(), __imul__(), __iter__(), __le__(), __len__(), __len__(), __len__(), __reversed__(), __rmul__(), __setitem__(), __setslice__(), __sizeof__(), append(), count(), extend(), index(), insert(), pop(), remove(), reverse(), sort()
```

#### Inherited from object

\_\_delattr\_\_(), \_\_format\_\_(), \_\_reduce\_ex\_\_(), \_\_setattr\_\_(), \_\_str\_\_(), \_\_subclasshook\_\_()

### 3.3.2 Properties

Name	Description
Inherited from object	
class	

#### 3.3.3 Class Variables

Name	Description
Inherited from list	
_hash	

Class Door Module door

### 4 Module door

#### 4.1 Variables

Name	Description
package	Value: None

#### 4.2 Class Door



Class which allow you to monitor each door.

#### 4.2.1 Methods

\_\_init\_\_(self, position, link, hasDoor=True)

 $x._init_{-}(...)$  initializes x; see help(type(x)) for signature

**Parameters** 

position: Position de la porte qui fait 0 d'epaisseur et 2 de largeur,

on veut donc les deux points qui sont les extremitees du

segment.

(type=Tuple de 2 tuple de 2 entiers.)

link: Which rooms are linked by this door.

(type=Tuple of 2 integer.)

hasDoor: Permet de savoir si il y a une porte, si il y en a pas on

dit que la porte est toujours ouverte.

(type=Booleen.)

Overrides: object.\_\_init\_\_

#### isClosed(self)

Renvoie vrai si la porte est fermee.

#### Return Value

Renvoie vrai si la porte est fermee.

(type=Booleen.)

Class Door Module door

### getPosition(self)

### $\mathbf{getLink}(self)$

Renvoie les salles reliees par la porte.

#### Return Value

Retourne le tuple des salles reliees.

(type=Tuple d'entiers correspondant aux salles dans la liste du vaisseau, donc ca commence a 0.)

### closeDoor(self)

Ferme la porte si il y en a une.

### openDoor(self)

Ouvre la porte.

### Inherited from object

#### 4.2.2 Properties

Name	Description
Inherited from object	
_class_	

Class Drone Module drones

## 5 Module drones

#### 5.1 Functions

genDrone(nameDrone)	
---------------------	--

```
genCombatDrone(nameDrone)
```

#### 5.2 Variables

Name	Description
tree	Value:
	<pre>ET.parse('ftl_drones_resources.xml')</pre>
root	Value: tree.getroot()
package	Value: None

### 5.3 Class Drone

object — drones.Drone

Known Subclasses: drones.CombatDrone, drones.DefensiveDrone

#### 5.3.1 Methods

\_\_init\_\_(self, name, typeD, power, cost)

x.\_\_init\_\_(...) initializes x; see help(type(x)) for signature

Overrides: object.\_\_init\_\_ extit(inherited documentation)

```
repr__(self)
repr(x)
Overrides: object.__repr__ extit(inherited documentation)
```

 $\mathbf{getName}(self)$ 

 $\mathbf{powerIt}(self)$ 

Class CombatDrone Module drones

```
 \begin{aligned} & \textbf{unpowerIt}(self) \\ & \textbf{isPowered}(self) \\ & \textbf{getPower}(self) \\ & \textbf{getCooldown}(self) \\ & \textbf{setCooldown}(self, val) \\ & \textbf{getType}(self) \end{aligned}
```

### Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 5.3.2 Properties

Name	Description
Inherited from object	
_class	

#### 5.4 Class CombatDrone

```
object —
drones.Drone —
drones.CombatDrone
```

#### 5.4.1 Methods

```
__init__(self, name, power, cost, speed)

x.__init__(...) initializes x; see help(type(x)) for signature

Overrides: object.__init__ extit(inherited documentation)
```

$$\mathbf{getSpeed}(\mathit{self})$$

Class DefensiveDrone Module drones

### Inherited from drones.Drone(Section 5.3)

```
_repr_(), getCooldown(), getName(), getPower(), getType(), isPowered(), powerIt(), setCooldown(), unpowerIt()
```

### Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 5.4.2 Properties

Name	Description
Inherited from object	
_class	

#### 5.5 Class DefensiveDrone



#### 5.5.1 Methods

## $Inherited\ from\ drones. Drone (Section\ 5.3)$

## $Inherited\ from\ object$

#### 5.5.2 Properties

Name	Description
Inherited from object	
_class	

Variables Module globalVar

## 6 Module globalVar

## 6.1 Variables

Name	Description
divisionTime	Value: 25
showShipState	Value: True
package	Value: None

Class Room Module room

### 7 Module room

#### 7.1 Variables

Name	Description
package	Value: None
divisionTime	Value: 25
showShipState	Value: True

#### 7.2 Class Room



Class which allow you to monitor each room.

#### 7.2.1 Methods

 $\_$ **init** $\_$ (self, kw, nb, doors)

 $x.\_init\_(...)$  initializes x; see help(type(x)) for signature

**Parameters** 

kw: List of the holes, their position and the tuple of the 2 rooms they link.

Overrides: object.\_\_init\_\_

### getCoords(self)

Renvoie les coordonnees d'une salle

#### Return Value

liste de deux points

#### getNbBoxes(self)

Return the number of boxes that compose the room, normally only 2 or 4.

#### Return Value

Return the number of boxes composing the room.

(type=Integer.)

Class Room Module room

getDoors(self)setDoors(self, d)getBreach(self) Renvoie s'il y a une breche dans la coque Return Value Integer doBreach(self)repairBreach(self) getFire(self)Renvoie s'il y a du feu Return Value Integer **startFire**(self) extinguishFire(self) getSystem(self)Renvoie le nom du systeme present dans la salle. Return Value Return the name of the system that is in the room or False if there is no system. @rtype String or Boolean. getNB(self)getOxygen(self)setOxygen(self, nb)removeOxygen(self, nb)

addOxygen(self, nb)

Class Room Module room

**cooldowns**(self, crew, system, listRooms)

Fires, repair, boarders...

### crewTasks(self, crew, system)

The tasks crew members have to do each turn, like repair, extinguish fires...

#### **Parameters**

crew: List of the crew members of the entire ship.

(type=List of objects of the class CrewMember.)

system: System in the room.

(type=Object of the class System, something else if there's

no system.)

### dotsToCrew(self, crew)

Damages over time to the crewmen in the room, due to fire and suffocation.

#### **Parameters**

crew: List of the crew members of the entire ship.

(type=List of objects of the class CrewMember.)

#### testExtinction(self)

### testBreachRepair(self)

**expansionFire**(self, listRooms)

expansionOxygen(self, listRooms)

### Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __repr__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 7.2.2 Properties

Name	Description
Inherited from object	
class	

## 8 Module ship

#### 8.1 Variables

Name	Description
package	Value: None
divisionTime	Value: 25
root	Value: tree.getroot()
showShipState	Value: True
tree	Value:
	<pre>ET.parse('ftl_drones_resources.xml')</pre>

### 8.2 Class Ship

Class which modelize a ship Have : -self.\_\_life=life -self.\_\_powerAvailable =  $\max$ Power -self.\_\_missiles =  $\min$ Self.\_\_missiles

#### 8.2.1 Methods

\_\_init\_\_(self, systems, listWeapons, rooms, nameShip, typeShip, listDrones, life=30, maxPower=10, missiles=10, droneParts=6)

 $x._iinit_{-}(...)$  initializes x; see help(type(x)) for signature

#### **Parameters**

systems: Dictionary in which the keys are the name of the systems and the value is the number of power that you can put in each.

(type=Dictionary)

Overrides: object.\_\_init\_\_

### initGraph(self)

```
repr__(self)
repr(x)
Overrides: object.__repr__ extit(inherited documentation)
```

20

degat(self, nb)Do nb damages to the ship. isCloaked(self) $\mathbf{getGraph}(\mathit{self})$ getFastestWay(self)setFastestWay(self, r)getHP(self)Get the health points of the ship. Return Value Return the health points of the ship. (type=Integer.) getName(self)getID(self) $\mathbf{getType}(\mathit{self})$ getCrew(self)**setCrew**(*self*, *crew*) setMissiles(self, val) setDroneParts(self, val) getMissiles(self) getDroneParts(self) getMaxPower(self)

#### $\mathbf{ko}(self)$

Return if the ship is dead or not.

### **hasSystem**(self, nameSystem)

Permet de savoir si le vaisseau a tel systeme.

#### **Parameters**

nameSystem: Nom du systeme dont on veut savoir l'existence.

(type=Nom en minuscule, en toute lettres, d'un

systeme.)

### getSystems(self)

### getSystem(self, nameSystem)

Get the object corresponding to the system asked.

#### **Parameters**

nameSystem: Name of the system asked.

(type=String.)

#### Return Value

Return an object of the subclass of System, or return False if the ship don't have the system asked.

(type=Object of subclass of System or Boolean.)

#### getRooms(self)

Get the list of all the rooms of the ship. The index in the list correspond to the number of the room.

#### Return Value

Return the list of the rooms which are objects of the class Room.

(type=List of Room class's objects.)

#### getLvlCrewRoomSystem(self, nameSystem)

From the name of a system, it will return the highest lvl in this system of the crew member in the room of the system.

#### Return Value

Return the highest lvl of the crew members or -1 if there's nobody.

(type=Integer.)

### getRoomSystem(self, nameSystem)

### getPowerAvailable(self)

Get the number of power that is available/unused.

#### Return Value

Number of power available.

(type=Integer.)

### setPowerAvailable(self, nb=1)

Set the number of available power.

#### **Parameters**

nb: Number to set of available power.

(type=Positiv integer.)

### addPower(self, nb)

#### cooldowns(self)

Various cooldowns.

#### refillOxygen(self)

#### poweringSystems(self)

#### attackRoom(self, weapon, indexRoom)

Room is under attack.

Add xp to crew and manage the attack (damages to systems, start fire/breach, double damages to hull.

#### **Parameters**

weapon: Weapon used to do this single attack.

(type=Object of the class Weapon.)

indexRoom: Index in the list of rooms of the room attacked.

(type=Integer between 0 and len(self.\_weapons)-1.)

### attackBeam(self, weapon, coord1, coord2)

### addXpCrew(self, nameSystem)

Add xp the crew for using certain systems.

#### **Parameters**

nameSystem: Name of the system where crew can get xp.

(type=String.)

### squareOnLine(self, square, coord1, coord2)

Test if a square is intersected (even partially) by a line.

#### **Parameters**

square: Coordinates of the square, top left-hand corner and bottom

right-hand corner.

(type=List of 2 lists of 2 integers.)

coord1: Coordinates of the first point of the line.

(type=List of 2 integers.)

coord2: Coordinates of the second point of the line.

(type=List of 2 integers.)

### linesIntersect(self, line1, line2)

Test if two lines intersect.

#### Parameters

line1: List of a line in the plan.

(type=List of 2 lists of 2 integers.)

line2: List of a line in the plan.

(type=List of 2 lists of 2 integers.)

#### Return Value

True if the lines intersect, False else.

(type=Boolean.)

### attackRoomCombatDrone(self, drone, indexRoom)

### attackOpponent(self, ship2)

Use every weapons to attack the opponent's ship.

#### **Parameters**

ship2: The target of the attack.

(type=Object of the class Ship.)

## **ioniseIncoming**(self, indexRoom)

### tryUseCloaking(self)

This method is called each tick of the clock, check if there's the system for cloaking and it tries to activate the cloaking and do the cooldown of the system.

## $\mathbf{deactivateCloaking}(\mathit{self})$

```
activateCloaking(self)
```

### Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

### 8.2.2 Properties

Name	Description
Inherited from object	
class	

#### 8.2.3 Class Variables

Name	Description
ID	Value: 1

## 9 Module ships\_layouts

#### 9.1 Functions

genShip(nameShip='kestrel', typeShip='typeA')

Return the basic ship of a certain name and type.

**Parameters** 

nameShip: Name of the ship you want.

(type=String.)

typeShip: Type of the ship you want.

(type=String.)

Return Value

Return the starter ship.

(type=Object of the class Ship.)

## listString2listInt(l)

Transcript a list of integers in strings into a list of integers.

#### **Parameters**

1: List of the integers written in strings.

(type=List of strings.)

#### Return Value

Return a list of integers.

(type=List of integers.)

#### 9.2 Variables

Name	Description
tree	Value: ET.parse('ftl_ships_layouts.xml')
root	Value: tree.getroot()
package	Value: None
divisionTime	Value: 25
showShipState	Value: True

Class System Module systems

## 10 Module systems

#### 10.1 Variables

Name	Description
package	Value: None
divisionTime	Value: 25
showShipState	Value: True

#### 10.2 Class System

```
object — systems.System
```

**Known Subclasses:** systems.BackupBattery, systems.Cloaking, systems.CloneBay, systems.CrewTeleporter, systems.DoorSystem, systems.DroneControl, systems.Engines, systems.Hacking, systems.Medbay, systems.MindControl, systems.Oxygen, systems.Piloting, systems.Sensors, systems.Shields, systems.WeaponControl

Class which operate a system that is is in a room of the ship.

#### 10.2.1 Methods

```
__init__(self, name, ship, maxPower=1, maxPowerMax=4)

x.__init__(...) initializes x; see help(type(x)) for signature

Overrides: object.__init__ extit(inherited documentation)
```

```
repr__(self)
repr(x)
Overrides: object.__repr__ extit(inherited documentation)
```



$\mathbf{setPowerIonised}(\mathit{self}, \mathit{val})$
---

$\mathbf{getCooldownIon}(self)$
---------------------------------

Class System Module systems

${\bf setCooldownIon}(\mathit{self}, \mathit{val})$
${\bf get Cooldown Ion Done}(\mathit{self})$
${\bf setCooldownIonDone}(\textit{self}, \textit{val})$
$\mathbf{getShip}(self)$
$\boxed{\mathbf{getMaxPowerMax}(\mathit{self})}$
$\mathbf{getPowerInIt}(self)$
$\boxed{\mathbf{setPowerInIt}(\mathit{self},\mathit{nb})}$
$\boxed{\mathbf{getCurrentMaxPower}(\mathit{self})}$
Get the maximum of power you can put a the moment.
$\mathbf{setCurrentMaxPower}(\mathit{self},\mathit{nb})$
$\mathbf{getMaxPower}(self)$
$\boxed{\mathbf{getName}(\mathit{self})}$
$\boxed{\mathbf{getNameAbbreviation}(\mathit{self})}$
$oxed{\mathbf{getDots}(self)}$
$\boxed{\mathbf{setDots}(\mathit{self},\mathit{nb})}$
$\mathbf{getRepair}(\mathit{self})$
$\mathbf{setRepair}(\mathit{self},\mathit{nb})$
isIonised(self)

Class System Module systems

### addPower(self, nb=1)

Add power to the system.

#### **Parameters**

nb: Number of power to add.

(type=Integer.)

### upgradeMaxPower(self)

Upgrade of 1 the maximum of power you can put in your system.

#### Return Value

Return True if it actually upgraded the maximum.

(type=Boolean.)

### doDamages(self, damages=1)

#### Return Value

Return is the damages changed something.

(type=Boolean.)

### ionise(self)

Manage the ion attack of a system.

 $http://www.ftlgame.com/forum/viewtopic.php?f=7\&t=21942\ Explanation\ of\ the\ ions.$ 

#### cooldownIon(self)

At every tick of the clock it should be called and it manages the cooldown of the ionisation of the system.

#### reparation(self, crew)

At every tick of the clock every crewman repair the system.

This function is called only if there is at least one crewman to repair the system (if not, it won't work), it add xp when it should.

#### **Parameters**

crew: List of the crew members in the room of the system.

(type=List of objects of the class CrewMember.)

Class Shields Module systems

### **dotFire**(self, nbFires)

At every tick of the clock, every fire do damages to the system.

This function manage the dots and do true damages when there has been enough dots.

#### **Parameters**

nbFires: Number of fires in the room.

(type=Integer.)

```
explode(self)
```

### Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 10.2.2 Properties

Name	Description
Inherited from object	
class	

#### 10.3 Class Shields

```
object —
systems.System —
systems.Shields
```

#### 10.3.1 Methods

```
__init__(self, ship, maxPower=1)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

### getLayers(self)

Class Shields Module systems

### incomingDamages(self, typeOfWeapon)

Try block the damages and say if it did it.

#### Return Value

Return True if it blocked the damages.

(type=Boolean.)

### cooldownLayer(self, lvlCrew)

At every tick of the clock it recharge the shield's layers if they're not at max.

#### **Parameters**

lvlCrew: Maximum level of the eventual multiple crew members. -1 if there's no crewman.

(type=Integer.)

#### ionise(self)

Manage the ion attack of a system.

 $http://www.ftlgame.com/forum/viewtopic.php?f=7\&t=21942\ Explanation\ of\ the\ ions.$ 

Overrides: systems.System.ionise

## Inherited from systems.System(Section 10.2)

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getNameAbbreviation(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

### Inherited from object

#### 10.3.2 Properties

Name	Description
Inherited from object	
class	

Class Engines Module systems

### 10.4 Class Engines

```
object —
systems.System —
systems.Engines
```

#### 10.4.1 Methods

```
__init__(self, ship, maxPower)

x.__init__(...) initializes x; see help(type(x)) for signature

Overrides: object.__init__ extit(inherited documentation)
```

```
incomingDamages(self, lvlCrewWeaponControl, lvlCrewPiloting,
powerPiloting=1)
```

#### **Parameters**

lvlCrewPiloting: Lvl in piloting of the member of the crew in it,

value of -1 if the room is unmanned.

(type=Integer.)

powerPiloting: Number of power put in the piloting system.

(type=Integer.)

#### Return Value

Return True if the damages are dodged.

(type=Boolean.)

### $Inherited\ from\ systems. System (Section\ 10.2)$

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), get-CooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), get-MaxPower(), getMaxPowerMax(), getName(), getNameAbbreviation(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

### Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

Class Piloting Module systems

#### 10.4.2 Properties

Name	Description
Inherited from object	
class	

### 10.5 Class Piloting

```
object —
systems.System —
systems.Piloting
```

#### 10.5.1 Methods

```
__init__(self, ship, maxPower=1)

x.__init__(...) initializes x; see help(type(x)) for signature

Overrides: object.__init__ extit(inherited documentation)
```

### Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getNameAbbreviation(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

### Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 10.5.2 Properties

Name	Description
Inherited from object	
class	

Class WeaponControl Module systems

### 10.6 Class WeaponControl

```
object —
systems.System —
systems.WeaponControl
```

#### 10.6.1 Methods

```
__init__(self, ship, maxPower=1, maxWeapons=4)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

### getNameAbbreviation(self)

Overrides: systems.System.getNameAbbreviation

### getWeapons(self)

### addWeapon(self, weapon)

Add a weapon to the dock.

#### **Parameters**

weapon: Weapon of the class Weapon.

(type=Object of the class Weapon.)

#### Return Value

Return True if it could add the weapon.

(type=Boolean.)

### powerWeapon(self, indexWeapon)

Power a weapon if it possible.

Check if there is enough power available, if the weapon isn't already powered and if you can put more power into the weapon control.

#### **Parameters**

indexWeapon: The index of the weapon in the list of weapons.

(type=Integer.)

Class WeaponControl Module systems

### unpowerWeapon(self, indexWeapon)

Unpower a weapon.

Check if the weapon is powered.

#### **Parameters**

indexWeapon: The index of the weapon in the list of weapons.

(type=Integer.)

#### Return Value

Return the power to add to the available power of the ship.

(type=Integer.)

### cooldownWeapons(self, lvlCrew)

At every tick of the clock, it recharge the weapons that are powered.

#### **Parameters**

lvlCrew: Lvl in weapons of a crew member in the room containing the weapon control system, -1 if there is no crew member.

(type=Integer.)

### useWeapon(self, indexWeapon, ship2)

Use a weapon against the opposite ship.

#### **Parameters**

indexWeapon: The index of the weapon in the list of weapons.

(type=Integer.)

#### doDamages(self, damages=1)

#### Return Value

Return is the damages changed something.

(type=Boolean.)

Overrides: systems.System.doDamages

### testUnpowerWeapons(self)

Unpower weapons if there is not enough power.

### weaponHasBeenUsed(self)

Class Oxygen Module systems

### cooldownIon(self)

At every tick of the clock it should be called and it manages the cooldown of the ionisation of the system.

Overrides: systems.System.cooldownIon

### ionise(self)

Manage the ion attack of a system.

 $http://www.ftlgame.com/forum/viewtopic.php?f=7\&t=21942\ Explanation\ of\ the\ ions.$ 

Overrides: systems.System.ionise

### Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), dotFire(), explode(), getCooldownIon(), getCooldownIon-Done(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

### Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 10.6.2 Properties

Name	Description
Inherited from object	
class	

#### 10.7 Class Oxygen

```
object —
systems.System —
systems.Oxygen
```

Class Medbay Module systems

#### 10.7.1 Methods

```
__init__(self, ship, maxPower=1)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

## Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getNameAbbreviation(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

### 10.7.2 Properties

Name	Description
Inherited from object	
class	

## 10.8 Class Medbay

```
object —
systems.System —
systems.Medbay
```

#### 10.8.1 Methods

```
__init__(self, ship, maxPower=1)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

Class Sensors Module systems

## amountHealPerSecond(self)

## Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), get-CooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), get-MaxPower(), getMaxPowerMax(), getName(), getNameAbbreviation(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 10.8.2 Properties

Name	Description
Inherited from object	
_class	

#### 10.9 Class Sensors

```
object — systems.System — systems.Sensors
```

#### 10.9.1 Methods

```
__init__(self, ship, maxPower=1)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

## Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getNameAbbreviation(), getPow-

Class DoorSystem Module systems

erInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 10.9.2 Properties

Name	Description
Inherited from object	
class	

## 10.10 Class DoorSystem

```
object —
systems.System —
systems.DoorSystem
```

#### 10.10.1 Methods

```
__init__(self, ship, maxPower=1)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

```
getNameAbbreviation(self)
Overrides: systems.System.getNameAbbreviation
```

## $Inherited\ from\ systems. System (Section\ 10.2)$

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

Class DroneControl Module systems

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 10.10.2 Properties

Name	Description
Inherited from object	
class	

### 10.11 Class DroneControl

```
object —
systems.System —
systems.DroneControl
```

#### 10.11.1 Methods

\_\_init\_\_(self, ship, maxPower=1, maxDrones=3)

x.\_\_init\_\_(...) initializes x; see help(type(x)) for signature

Overrides: object.\_\_init\_\_ extit(inherited documentation)

getNameAbbreviation(self)

Overrides: systems.System.getNameAbbreviation

getDrones(self)

addDrone(self, drone)

powerDrone(self, indexDrone)

cooldownDrones(self)

**useDrone**(self, indexDrone, ship2)

Class DroneControl Module systems

## doDamages(self, damages=1)

#### Return Value

Return is the damages changed something.

(type=Boolean.)

Overrides: systems.System.doDamages

## testUnpowerDrones(self)

Unpower weapons if there is not enough power.

## cooldownIon(self)

At every tick of the clock it should be called and it manages the cooldown of the ionisation of the system.

Overrides: systems.System.cooldownIon

## ionise(self)

Manage the ion attack of a system.

http://www.ftlgame.com/forum/viewtopic.php?f=7&t=21942 Explanation of the ions.

Overrides: systems.System.ionise

## Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), dotFire(), explode(), getCooldownIon(), getCooldownIon-Done(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

### Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __subclasshook__()
```

#### 10.11.2 Properties

Name	Description
Inherited from object	
class	

Class BackupBattery Module systems

## 10.12 Class BackupBattery

```
object —
systems.System —
systems.BackupBattery
```

#### 10.12.1 Methods

```
__init__(self, ship, maxPower=1)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

```
\begin{tabular}{ll} {\bf getNameAbbreviation} (self) \\ {\bf Overrides: \ systems. System. getNameAbbreviation} \\ \end{tabular}
```

## Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __subclasshook__()
```

#### 10.12.2 Properties

Name	Description
Inherited from object	
class	

Class CrewTeleporter Module systems

## 10.13 Class CrewTeleporter

```
object —
systems.System —
systems.CrewTeleporter
```

#### 10.13.1 Methods

```
__init__(self, ship, maxPower=1)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

```
\begin{tabular}{ll} {\bf getNameAbbreviation} (self) \\ {\bf Overrides: \ systems. System. getNameAbbreviation} \\ \end{tabular}
```

## Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __subclasshook__()
```

#### 10.13.2 Properties

Name	Description
Inherited from object	
class	

Class Cloaking Module systems

## 10.14 Class Cloaking

```
object —
systems.System —
systems.Cloaking
```

#### 10.14.1 Methods

```
__init__(self, ship, maxPower=1)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)

isUsed(self)

getTimesIonised(self)

cooldownCloaking(self)

generalCooldown(self)

ionisedCloaking(self)

useCloaking(self)

weaponIsUsed(self)
```

## Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getNameAbbreviation(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

Class CloneBay Module systems

#### 10.14.2 Properties

Name	Description
Inherited from object	
_class	

## 10.15 Class CloneBay

```
object —
systems.System —
systems.CloneBay
```

#### 10.15.1 Methods

```
__init__(self, ship, maxPower=1)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

```
{f getDeadCrew}(self)
```

```
addDeadCrew(self, crewman)
```

```
\mathbf{cooldownRevive}(\mathit{self})
```

```
reviveCrewMember(self, crewman)
```

## Inherited from systems. System (Section 10.2)

```
_repr_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getNameAbbreviation(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()
```

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

Class MindControl Module systems

#### 10.15.2 Properties

Name	Description
Inherited from object	
class	

#### 10.16 Class MindControl

```
object —
systems.System —
systems.MindControl
```

#### 10.16.1 Methods

```
__init__(self, ship, maxPower=1)

x.__init__(...) initializes x; see help(type(x)) for signature

Overrides: object.__init__ extit(inherited documentation)
```

## Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

## Inherited from object

#### 10.16.2 Properties

Name	Description
Inherited from object	

Class Hacking Module systems

Name	Description
_class	

## 10.17 Class Hacking

```
object —
systems.System —
systems.Hacking
```

#### 10.17.1 Methods

```
__init__(self, ship, maxPower=1)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

## Inherited from systems. System (Section 10.2)

\_repr\_(), addPower(), cooldownIon(), doDamages(), dotFire(), explode(), getCooldownIon(), getCooldownIonDone(), getCurrentMaxPower(), getDots(), getMaxPower(), getMaxPowerMax(), getName(), getNameAbbreviation(), getPowerInIt(), getPowerIonised(), getRepair(), getShip(), ionise(), isIonised(), reparation(), setCooldownIon(), setCooldownIonDone(), setCurrentMaxPower(), setDots(), setPowerInIt(), setPowerIonised(), setRepair(), upgradeMaxPower()

### Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __subclasshook__()
```

#### 10.17.2 Properties

Name	Description
Inherited from object	
class	

## 11 Module test\_combats

## 11.1 Functions

$\mathbf{nfight}(n)$	
n fights of 2 Kestrel A	

${\bf one Equal Fight}()$	
1 fight between 2 Kestrel =	

 ${\bf one Inequal Fight}()$ 

## 12 Module tournament\_test

## 12.1 Functions

generation()
--------------

## 12.2 Variables

Name	Description
t1	Value: time()
n	Value: 1
ship1Won	Value: 0
ship2Won	Value: 0
ship3Won	Value: 0
ship4Won	Value: 0
ship5Won	Value: 0
ship6Won	Value: 0
t2	Value: time()

## $13 \quad Module \ weapon\_module\_WIP$

Module which import and modelize the weapons.

## 13.1 Functions

$\mathbf{genMissile}(\mathit{missileType})$
$\mathbf{genBeam}(beamType)$
$\mathbf{genLaser}(laserType)$
$\mathbf{genIon}(ionType)$
$\mathbf{genWeapon}(nameWeapon)$

## 13.2 Variables

Name	Description	
tree	Value:	
	ET.parse('ftl_weapon_resource.xml')	
root	Value: tree.getroot()	
package	Value: None	

## 13.3 Class Weapon

object — weapon\_module\_WIP.Weapon

 $\textbf{Known Subclasses:} \ we apon\_module\_WIP. Beam, \ we apon\_module\_WIP. Ion, \ we apon\_module\_WIP. Laser, \ we apon\_module\_WIP. Missile$ 

#### 13.3.1 Methods

```
_init__(self, name, damage=0, power=0, cooldown=0, cost=0, hits=1,
fire=0.0, breach=0.0, stun=0.0, type Weapon='whatever', powered=False)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
__repr__(self)
repr(x)
Overrides: object._repr_ extit(inherited documentation)
getName(self)
\mathbf{getType}(self)
getDamage(self)
getPower(self)
getCooldown(self)
getCurrentCooldown(self)
setCurrentCooldown(self, nb)
getCost(self)
getHits(self)
getFireChance(self)
getBreachChance(self)
getStunChance(self)
isPowered(self)
```

```
\mathbf{powerIt}(self)
```

```
|\mathbf{unpowerIt}(self)|
```

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 13.3.2 Properties

Name	Description
Inherited from object	
class	

#### 13.4 Class Missile

```
object —
weapon_module_WIP.Weapon —
weapon_module_WIP.Missile
```

#### 13.4.1 Methods

```
__init__(self, name, damage=0, power=0, cooldown=0, cost=0, hits=1, fire=0.0, breach=0.0, stun=0.0)

x.__init__(...) initializes x; see help(type(x)) for signature

Overrides: object.__init__ extit(inherited documentation)
```

## $Inherited\ from\ weapon\_module\_WIP.Weapon(Section\ 13.3)$

```
_repr_(), getBreachChance(), getCooldown(), getCost(), getCurrentCooldown(), getDamage(), getFireChance(), getHits(), getName(), getPower(), getStunChance(), getType(), isPowered(), powerIt(), setCurrentCooldown(), unpowerIt()
```

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 13.4.2 Properties

Name	Description
Inherited from object	
_class	

#### 13.5 Class Beam

#### 13.5.1 Methods

```
__init__(self, name, damage=0, power=0, cooldown=0, cost=0, hits=1, fire=0.0, breach=0.0, stun=0.0, beamLength=0)

x.__init__(...) initializes x; see help(type(x)) for signature

Overrides: object.__init__ extit(inherited documentation)
```

```
\mathbf{getBeamLength}(self)
```

## $Inherited\ from\ weapon\_module\_WIP.Weapon(Section\ 13.3)$

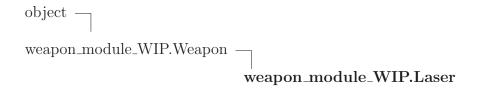
```
_repr__(), getBreachChance(), getCooldown(), getCost(), getCurrentCooldown(), getDamage(), getFireChance(), getHits(), getName(), getPower(), getStunChance(), getType(), isPowered(), powerIt(), setCurrentCooldown(), unpowerIt()
```

## $Inherited\ from\ object$

#### 13.5.2 Properties

Name	Description
Inherited from object	
class	

### 13.6 Class Laser



#### 13.6.1 Methods

```
__init__(self, name, damage=0, power=0, cooldown=0, cost=0, hits=1, fire=0.0, breach=0.0, stun=0.0, speed=0)

x.__init__(...) initializes x; see help(type(x)) for signature

Overrides: object.__init__ extit(inherited documentation)
```

```
\mathbf{getSpeed}(self)
```

## Inherited from weapon\_module\_WIP.Weapon(Section 13.3)

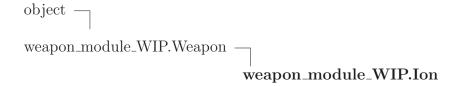
```
_repr_(), getBreachChance(), getCooldown(), getCost(), getCurrentCooldown(), getDamage(), getFireChance(), getHits(), getName(), getPower(), getStunChance(), getType(), isPowered(), powerIt(), setCurrentCooldown(), unpowerIt()
```

## Inherited from object

#### 13.6.2 Properties

Name	Description
Inherited from object	
class	

#### 13.7 Class Ion



#### 13.7.1 Methods

```
__init__(self, name, damage=0, power=0, cooldown=0, cost=0, hits=1, fire=0.0, breach=0.0, stun=0.0, speed=0)
x.__init__(...) initializes x; see help(type(x)) for signature
Overrides: object.__init__ extit(inherited documentation)
```

```
\mathbf{getSpeed}(\mathit{self})
```

## $Inherited\ from\ weapon\_module\_WIP.Weapon(Section\ 13.3)$

```
_repr_(), getBreachChance(), getCooldown(), getCost(), getCurrentCooldown(), getDamage(), getFireChance(), getHits(), getName(), getPower(), getStunChance(), getType(), isPowered(), powerIt(), setCurrentCooldown(), unpowerIt()
```

## Inherited from object

```
__delattr__(), __format__(), __getattribute__(), __hash__(), __new__(), __reduce__(), __reduce_ex__(), __setattr__(), __sizeof__(), __str__(), __subclasshook__()
```

#### 13.7.2 Properties

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