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**Standardizing Forge and Creation of Lightsaber**

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](https://www.iso.org/directives-and-policies.html)).

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This document was prepared by Technical Committee ISO/TC The Forge.

A list of all parts in the ISO SW2022 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

Introduction

This document was developed in response to a need to establish the specifications needed in order to forge/create a lightsaber from the beginning to the delivery of the final product. Starting with the election of the handle, passing through the choice of your kyber crystal until your weapon is conceived.

At the past, a method was developed to generate a focused beam of energy thus creating the first portable high-energy blade. These preliminary lightsabers were highly unstable and had poor energy efficiency based on a battery mounted on the wearer's belt, so they could only be used for a short time before overheating. Due to these flaws, early lightsabers were used as ceremonial items.

Over time the stability problem was solved, giving it a new use as a weapon. However, despite their stability, power supply remained an issue, still requiring the belt-mounted battery of previous generations. The power cable from the belt to the hilt tended to restrict the Jedi's movement in combat, making it impossible to throw the saber. However, the new stable blade gave them a superior advantage in hand-to-hand combat against heavily armored enemies.

With so many failures, the need arises to optimize this weapon for greater safety and ease of use. And this is how through the years and research this standard arises with which we obtain an efficient, portable and optimal weapon for use in combat. (Examples of pre and post standard LightSabers In Annex A.1)

**Standardizing Forge and Creation of Lightsaber**

# Scope

This document specifies the basic and main elements required for the construction of the lightsabe. In addition to the form of construction and specific materials to meet this standard.

It applies to any kind of lightsaber whether will be for a jedi or a Sith or any other force-sensitive living creatures, of the galaxy.

# Normative references

Knowledge and Technology acquired before 25.000 ABY, by the Rakata (First Forgers of the LightSabers) at the time of the infinite empire.

Descriptions of Ancient Technology developed by scholars of the jedi order who developed the first retractile blade.

Knowledge transmitted from generation to generation by the blacksmiths of the forge.

# Terms and definitions

For the purposes of this document, the following terms and definitions apply.

## 3.1 Kyber crystal

Rock used as a power source for the creation of the lightsabers.

Source: Ancient Laws of the forge.

## 3.2 ABY(After)

Reference to events after the Battle of Yabin.

## 3.2 BBY (Before) (Bis)

Reference to events before the Battle of Yabin.

## 3.3 Adega, Llum y Dantooine

Planets on which mines for the extraction of Kyber crystals are located.

Source: Minister of Intergalactic Planet distribution

## 3.4 Diatium

A metal substance used in small power cells as early as four millenia BBY.

Source: Powercell's assembly manual.

## 3.5 Vortex Ring

Highly concentrated, stabilizing mineral to prevent external vibrations that could compromise the stability of the diatium power cell.

Source: Powercell’s assembly manual.

## 3.6 Bifurcated Ignition Pulse

A pulse that enabled a lightsaber to activate underwater with the help of two crystals.

Source: Assembly Manual.

## 3.7 Proto Saber

A type of ancient prototype lightsaber.

Source: Intergalactic Knowledge.

# Essential and main components

Before the beginning of the forging process, you will need to acquire the minimum necessary components to build the lightsaber properly, the components needed are the following ones:

* A Kyber crystal (up to three).
* A handle.
* An activation plate.
* A safety switch.
* An emitting matrix
* A lens.
* A power cell.
* An energy channel.
* A charging socket.
* A belt loop.

These are the minimum components, but more components can be added according to the needs and specifications to improve the characteristics of the product.

Diagrama

Descripción generada automáticamente

1. Example of components of the Anakin Skywalker’s lightsaber

# Specifications

## Handle

The lightsaber handle consist of an allow cylinder between 25 to 30 cm length, the dimensions may vary due to the user's needs. The component that creates and shapes the blade must be inside of the handle. The specification of the materials for the construction of the handle can be found in the annex A.3.

### Activation Plate

It consists of a sensor in the handle that deactivates the blade when it is released.

### Safety switch

A crucial component that allows the owner to block the blade to prevent accident due to an accidental activation.

### Belt Top

Component used to attach the lightsaber to the belt of the user for easy transportation.

## Crystal Chamber

### Kyber Crystal

The crystals can be natural or synthetic crystals, but they must be properly impregnated with the Force.

Crystals should only be sourced from the crystal caves of individual crystals or from furnaces specialised in the creation of synthetic crystals.

The mines authorised for the extraction of crystals are located in the next planets:

* + - Adega
    - Llum
    - Dantooine

For the known light crystals under this standard, please refer to the Annex A.2.

## Circuit Unit

### Lens

A special Len that channels the power of the crystal.

### Energy Channel

A channel that allows the energy from the cell to flow through the entire components.

## Power source

### Emitting matrix

A matrix that contains the plasma generated by the crystal that is going to be used to generate and shape the blade.

### Power Cell

It is a cell that provides energy to the system.

### Charging socket

A port that allows to re-charge the sable in case of need.

# Construction

## Previous steps

### Cyber Crystal Treatment

A crystal is required from those listed in the Annex A.2. The nature of the crystal is irrelevant, as it can be a pure crystal impregnated with the force, an indented stone or a neutral crystal.

### Assembly Lightsaber Power Source

We place a Diatium Power cell and wrap it with a conductive material. We encapsulate the Power Cell with 6 Power Vortex Ring. And finally, we cover it with a magnetic insulating material in addition to the nuclear carbon coating.

### Assembly Crystal Chamber

We attach the primary lens to the mount. Align the focusing crystals that will be connected to the focusing activator crystal and this activator will be attached to the energy gate. We now encapsulate the crystal matrix by forming the crystal chamber.

### Assembly Circuit Unit

We connect the blade length adjust and blade power adjust to the energy modulation circuit that will control the power and length of the Cycling field Energizers. In addition to the Blade energy channel too.

## General Assembly

Push the Power Supply assembly to the bottom of the handle. Screw handgrip attachment to fix it correctly to the handle. Align the energy channel with the concentrator crystal and assemble the two parts. Once aligned we insert the Blade arc tip to compress the circuit unit with the crystal chamber. At the output, we stabilise it with the Magnetic Stabilizing Ring.

Finally, we weld the belt ring to the butt of the handle and attach the surface grip rubbers.

## Special Blades Assembly

### Dual Phase

The assembly is the same as the general assembly but combining specific crystals that allow us to generate this kind of blades.

### Shoto Saber

The assembly process is the same as the general one but you will need smaller components in order to forge this kind of saber.

### Waterproof Saber

In order to create this kind of blade you will need to add a bifurcated cyclic ignition pulse to the general assembly process.

### Dual Blade

In order to forge dual blades, you will need to add another blade energy channel to allow the sable to generate other blade.

### Twin Lightsaber

You will need to forge two individual lightsabers and at the end of each one add the corresponding cable or block mechanism.

### Club Light Saber

The same process as the shoto saber but in this case, you will need bigger components in order to fit the user and a very powerful crystal in order to generate a massive blade.

# Blade Variants allowed

## Dual Phase

This sabers use a combination of kyber crystals that allows them to generate blades up to twice its original size with a simple activation.

## Shoto Saber

A saber with a shorter blade usually used by shorter force masters, also the non-force sensible creatures are allowed to use them due to the smaller blade.

## Waterproof Saber

This sabers are specifically created to be use under water, this is possible due to a bifurcated cyclic ignition pulse.

## Dual Blade

This kind of sabers creates two blades one at each end of the saber.

## Twin LightSabers

This are two sabers that could be assembled in one piece. This could be done by a block mechanism or by a cable.

## Club of Light

This saber is the result of using really powerful crystals, can create blades up to 3 metres and are used by force-sensible being of immense stature.

1. 1. Pre and Post Standard LightSabers.

Diagrama

Descripción generada automáticamente

Imagen que contiene tabla

Descripción generada automáticamente

ProtoSaber Image (Pre standardization construction)

Current LightSabers forged according to the standard.

* 1. List of recognized crystals

List of crystals recognised under this standard are:

* Adegan
  + Kathracite
  + Mephite
  + Pontite
* Ankarres Sapphire
* B'nar's Sacrifice
* Bane's Heart
* Barab ore
* Bondar
* Bondara's Folly
* Compressed energy crystal
  + Corusca
  + Luxum
* Damind
* Dragite
* Durindfire
* Eralam
* Firkrann
* Heart of the Guardian
* Hurrikaine
* Exiled Jedi CrystalKaiburr
* Kasha
* Katak
* Legado de Kenobi
* Krayt dragon pearl
* Lambent
* Lava Crystal
* Lorrdian
* Luxum
* Mantle of the Force
* Nextor
* Opila
  + Jenruax
* Permafrost
* Phond
* Qixoni
* Multicolored gem
* Rubat
* Ruusan
* Sapith
* Sigil
* Solari
* Estigio
* Sunrider's Destiny
* Synthetic crystal
* Upari
* Ultima-pearl
* Velmorite
* Vexxtal
* Viridian
  1. Handle materials

List of materials for the manufacture of the handle:

* Alloy Metal
* Mygeeto Campaign (Pre-order bonus)
* Umbaran Campaign (Pre-order bonus)
* Aurodium
* Matte
* Electrum Plated
* Copper
* Durasteel
* Polished Bronzium
* Dolovite
* Doonium
* Chromium
* Duralium
* Osmiridium
* Durite
* Cerakote
* Orichalc
* Slivian Iron
* Duraplast
* Haysian Smelt
* Corundium
* Crodium
* Arcetron
* Lamina Steel
* Bronzium
* Neuranium
  1. Kyber Combinations for Special Blades

|  |  |  |  |
| --- | --- | --- | --- |
| Crystal combinations | Dual Phase Saber | Club LighSaber | Twin LightSaber |
| Adegan & Eralam | ❌ | ✅ | ❌ |
| Katak & Solari | ✅ | ❌ | ✅ |
| Opila & Luxum | ❌ | ✅ | ❌ |
| Sapith & Sigil & Nextor | ❌ | ✅ | ❌ |
| Kasha & Dragite & Viridian | ✅ | ✅ | ❌ |
| Table Notes \* Contemplated sabers are those that require a specific combination of crystals in order to properly function.  \*Simpler sabers with less crystals could be forged with any crystal of the list (Annex A.2) | | | |

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[6]<https://starwars.fandom.com/wiki/Bifurcating_cyclical-ignition_pulse#:~:text=A%20bifurcating%20cyclical%2Dignition%20pulse,minor%20repairs%20before%20working%20again>.