

CODENAME

OPERATION GRIEVOUS

♦ Build Manual ♦

▶ EDITION	PUBLIC RELEASE · FREE TO SHARE
▶ SUBJECT	Print + robes + 2-4 sabers
▶ BUDGET	€100-300
▶ BUILD TIME	30-60 hrs
▶ TIMELINE	6 weeks

**A LONG TIME AGO, IN A WORKSHOP FAR, FAR
AWAY....**

FROM ZERO TO GRIEVOUS

The Separatist general, the lightsaber collector, the cyborg warrior.
A challenging build with a printed head and a hint of extra arms.

May the Force be with all who walk this path.



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READING ORDER · IF YOU READ NOTHING ELSE

Start here: Reality Check — it tells you what you are signing up for.

Before the event: Game Day Lines — the chapter that matters at hour two.

Everything in between is your build, in order. Take it one section at a time.



READ ME FIRST

This is a field manual, not a novel — you are not meant to read it front to back. Jump to the station you need:

RIGHT NOW Reality Check + Pick Your Approach.

BEFORE BUYING The Complete Parts List — order everything in one batch; shipping is the bottleneck.

WHILE BUILDING Work the build chapters in order; each one is a station, not a lecture.

BEFORE THE EVENT Game Day Lines — the only chapter that matters at hour two.

RUNNING LATE? Open the companion WEEK-BY-WEEK calendar and jump to your current week.

■ ONE SITTING RULE

Read Reality Check + Pick Your Approach today. Everything else waits until its week.



PICK YOUR BAR

*Three ways to field the Separatist general — from a wheezing hallway costume to a four-armed, saber-collecting cyborg. The same build can be finished to three different bars — pick yours **now**, because builders who polish for the wrong one burn weeks.*

LEAN · €100-160

Casual

Reads as Grievous at 5m under low light — a foam-and-fabric skull mask over a tattered cloak with two sabers on the belt. Skip the printed head, the ribcage cavity, and the extra arms; lean on the cape and bone-white face to sell the silhouette.

EFFORT · ~25 hrs

MID · €180-260

Convention

Reads as Grievous at conversation distance — most builders land here with a printed and painted skull, a shoulder frame, and a visible ribcage plate over the heart sac. Run a real belt with saber clips and 2 sabers; the cloak hides the absence of working lower arms.

EFFORT · ~45 hrs

501ST · €300+

Approved

Reads as Grievous under inspection — 501st-approval demands the full four-arm rig with articulated or split lower limbs, a screen-correct skull with weathered eye detail, hip plates, and a pulsing heart sac behind the ribcage. Carry all 4 collected sabers on the belt; gait and hunch sell the cyborg.

EFFORT · ~60 hrs



THE FALLBACK PLAN

*A first-time build of this suit is **30–60 hrs** of hands-on work across **6 weeks**. Life happens — so decide right now what gets cut when the clock wins. Finished beats perfect.*

BEHIND LATE Simplify next: Heart Sac, Hip Plates, Reference & Fit, Foot Talons — buy instead of make, or borrow.

EMERGENCY Every printed part has a buy option. Switching one part to bought can save a whole week.

ALWAYS The final week is for wearing it, not building it — dress rehearsal beats one more coat of paint.

🕒 THE HONEST RULE

If a piece is not started two weeks before the event, it is not in this year's costume. Build it for the next one.



THE COUNTDOWN

The whole plan on one page — tick the boxes as the weeks fall. The full week-by-week calendar is a separate companion PDF.

Weeks 6–5 ☐ Plan + order filament, cloak, two sabers, LED eyes

Weeks 4–3 ☐ Print head + ribcage + paint bone-grey

Week 2 ☐ Build the extra-arms rig + foam shoulders + hip plates

Week 1.5 ☐ Talon toe caps + LED eyes + weather everything

Week 1 ☐ Dress rehearsal + game day



REALITY CHECK

*One of the **hardest builds in the line** — a four-armed cyborg general.*

The trick is to suggest his unusual shape with smart costume tricks rather than try to physically be 7 feet tall with four working arms.

THE ONE RULE

The four arms and the hunched silhouette are Grievous. Even a simple version reads instantly if you get the two extra arms and the forward-hunched stance right — nail them and a rough build still stops the room. Nobody walks past a good Grievous.



PICK YOUR APPROACH

- ▶ **Static** — head + cloak + extra-arms rig (recommended).
- ▶ **Full skeletal** — add the ribcage and shin armour.
- ▶ **Puppet** — advanced builders use a shoulder harness with mechanical extras.



THE HEAD

The bone-grey mask with yellow eyes is the showpiece.

Print, sand smooth, prime, paint bone-grey, weather with a brown wash, then add yellow LEDs behind the eye slits.

YOU'LL SEE OUT THROUGH THE NECK / MOUTH

Plan your eye-line early. Most builders see out through a mesh panel at the mouth or neck. Test that you can walk safely before you finish painting.



THE EXTRA ARMS

Two hanging extra arms = instantly Grievous.

HOW

PVC armatures in foam-padded sleeves with gloves at the ends holding dummy sabers. Mounted into the cloak shoulders.



THE CLOAK

Hides the legs and the rig joints.

Dark hooded cloak, frayed hem. Hood up for the entrance is the iconic image.



SABERS

Two real + two dummy is plenty.

Mix blade colours — he stole them from Jedi.



BUILDER TIPS

- ▶ Don't try to walk on stilts.
- ▶ Hood up sells it.
- ▶ Two hanging arms is enough.

THE WALK & THE COUGH

- ▶ Hunch forward — the signature silhouette. Elbows out, head low.
- ▶ Move in sharp, mechanical bursts — he's a machine wearing a living heart.
- ▶ The wheezing cough is weirdly iconic; a dry, rasping cough between lines is pure character.
- ▶ Mind your width — four arms and a cape make you wider than usual. Watch doorways, crowds, and small kids.



SABER CRAFT

The blade is half the costume — fight like the character. **Unorthodox (Dooku-trained)**, wielded quad.

STYLE · UNORTHODOX (DOOKU-TRAINED)

No Force, no single form — Count Dooku's personal drills executed at machine speed by arms that split from two into four. A whirling wall of stolen blades meant to overwhelm before the duel even starts; reads closest to Makashi precision multiplied past anything a human body could copy. Grievous fights like a collection — every move is a dead Jedi's technique replayed faster, without the Jedi.

BLADE	● Blue — stolen from a fallen Jedi
BLADE	● Blue — stolen from a fallen Jedi
BLADE	● Green — stolen from a fallen Jedi
BLADE	● Green — stolen from a fallen Jedi
WIELD	quad

MORE THAN ONE BLADE — THE CRAFT

- ▶ Carry two lit and two clipped — four live blades need arena-sized clearance no convention hall has.
- ▶ Lead with the upper pair; the lower arms guard low and never chase.
- ▶ Claim full 360-degree space (arm-span plus blade, all sides) before any windmill, and never spin near people.
- ▶ Keep each blade on its own side of an imaginary center line — crossing your own arms is how the collection tangles.

Drill it

Slow four-count windmill with ONE saber at a time, counting each position out loud; only add the second hand once each arm can run the pattern alone without drifting.

⚠ DUEL SAFELY

Duel-grade polycarbonate blades only, never thin display tubes. Agree intensity before you start, no strikes to head or hands, and staff or dual spins need a full 3m of clear space.



GAME DAY LINES

*The costume gets you noticed — the **lines** make it unforgettable. Say them in character, time the pauses, and let the laughs land.*

● ● MORE GAME DAY LINES

- ▶ “Your lightsabers will make a fine addition to my collection.” — *hunched, raspy* — *add the trademark cough after*
- ▶ “Army or not, you must realize you are doomed.” — *slow menace, then a wheeze*
- ▶ “I’ve been trained in your Jedi arts by Count Dooku.” — *spread the arms wide* — *all four if your build has them*

😄 FOR LAUGHS — KID EDITION

- ▶ Your pencils will make a fine addition to my collection.
- ▶ *cough cough* Homework or not, you must realize this worksheet is doomed.
- ▶ Four arms means four lightsabers. Or four slices of pizza. Your choice, Kenobi.

COMPLETE PARTS LIST

Every piece referenced in this manual, grouped by where you get it. Shop in batches — fewer trips, fewer forgotten items.

I PRINT THESE PARTS

Your 3D-printing queue. Test-print one piece before committing the whole suit.

- **Head/mask** — Bone-grey paint, LED eyes.
- **Ribcage plate** — Or layered foam.
- **Hip plates** — Mirror one STL.
- **Toe caps** — Over plain dark boots.
- **Saber hilts (x2-4)** — Print or buy.

I BUY THESE

Order all at once — shipping is the bottleneck.

- **Dark hooded cloak** — Frayed hem.
- **PVC + foam** — Extra-arms rig.
- **Black gloves (x2 spare)** — Dummy hands.
- **Yellow LEDs + CR2032** — Behind the eyes.
- **Bone-grey + brown paint** — Plus clear coat.
- **Two real sabers** — Different blade colours.

3D FILES & SOURCES

Where to find the printable files and reference standards. Nothing copyrighted is hosted here — these point to community designers and costume-club resources. Always check a model's licence before printing.

Grievous head STL

Thingiverse

► [thingiverse.com](https://www.thingiverse.com/thing/1014444)

Lightsaber hilt STLs

Thingiverse

► [thingiverse.com](https://www.thingiverse.com/thing/1014444)

Instructables build

Instructables

► [instructables.com](https://www.instructables.com/3D-printed-Lightsaber-hilt/)

501st standards

501st.com

► [501st.com](https://www.501st.com/)



THE REPAIR KIT

Everything breaks at hour two. A sandwich bag with these seven things turns a costume emergency into a two-minute pit stop.

SUPER GLUE GELReattaches snapped prints and popped seams in 60 seconds. Gel doesn't run.

BLACK GAFFER TAPEInvisible on dark builds — holds a cracked plate through a whole event.

SAFETY PINS + VELCROInstant strap repair, hem fix, cape re-hang.

ZIP TIES (BLACK)Broken buckle, loose greeble, sagging belt box — tie it and move on.

PAINT PEN (BLACK + SILVER)Covers scratches and scuffed edges between photos.

SPARE BATTERIESFor LEDs and soundboards. The saber always dies at the door.

MICROFIBRE CLOTHHelmet fingerprints, lens fog, dusty boots.

■ PACK IT THE NIGHT BEFORE

One bag, one pocket (or a helper's backpack). If you have to go looking for glue, it is already too late.



Mid-build with painty fingers? This is the inside back cover index — every station and its page.

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MAY THE FORCE BE WITH YOU

"General Kenobi. You are a bold one."

— ALWAYS —

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