

RETICLE RED TUTORIAL

Fit Art to Your Part

**True size, exact holes and a straightened photo,
so the download fits the real part.**

The Fabricator · Part Size · exact holes · Straighten · Download card

reticle-red.com/fabricator

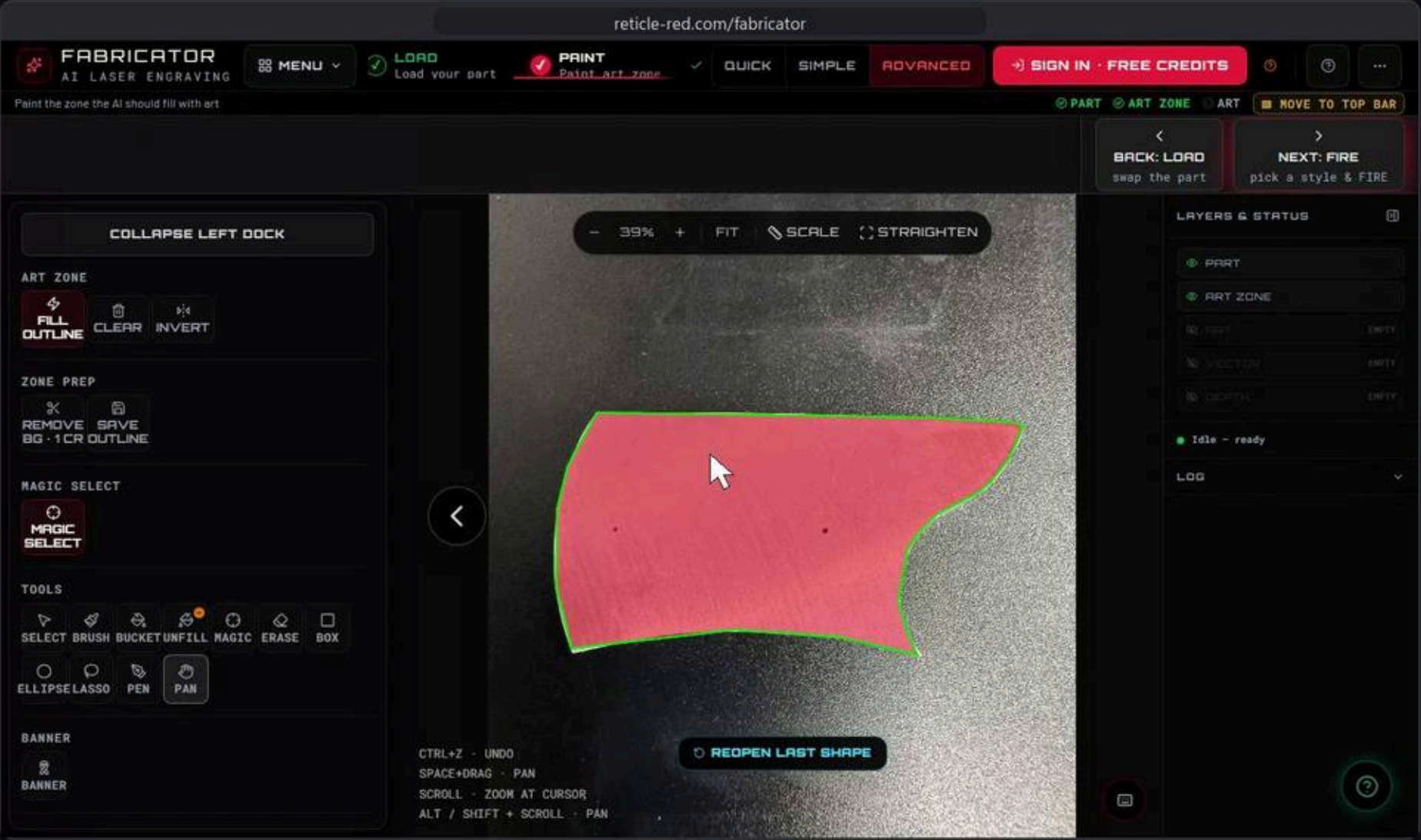
PART 1 OF 3

Part size and exact holes

Type width and height, then place holes by the number

RETICLE RED · FABRICATOR TUTORIAL

Part size and exact holes — Type width and height, then place holes by the number



STEP 1 OF 9

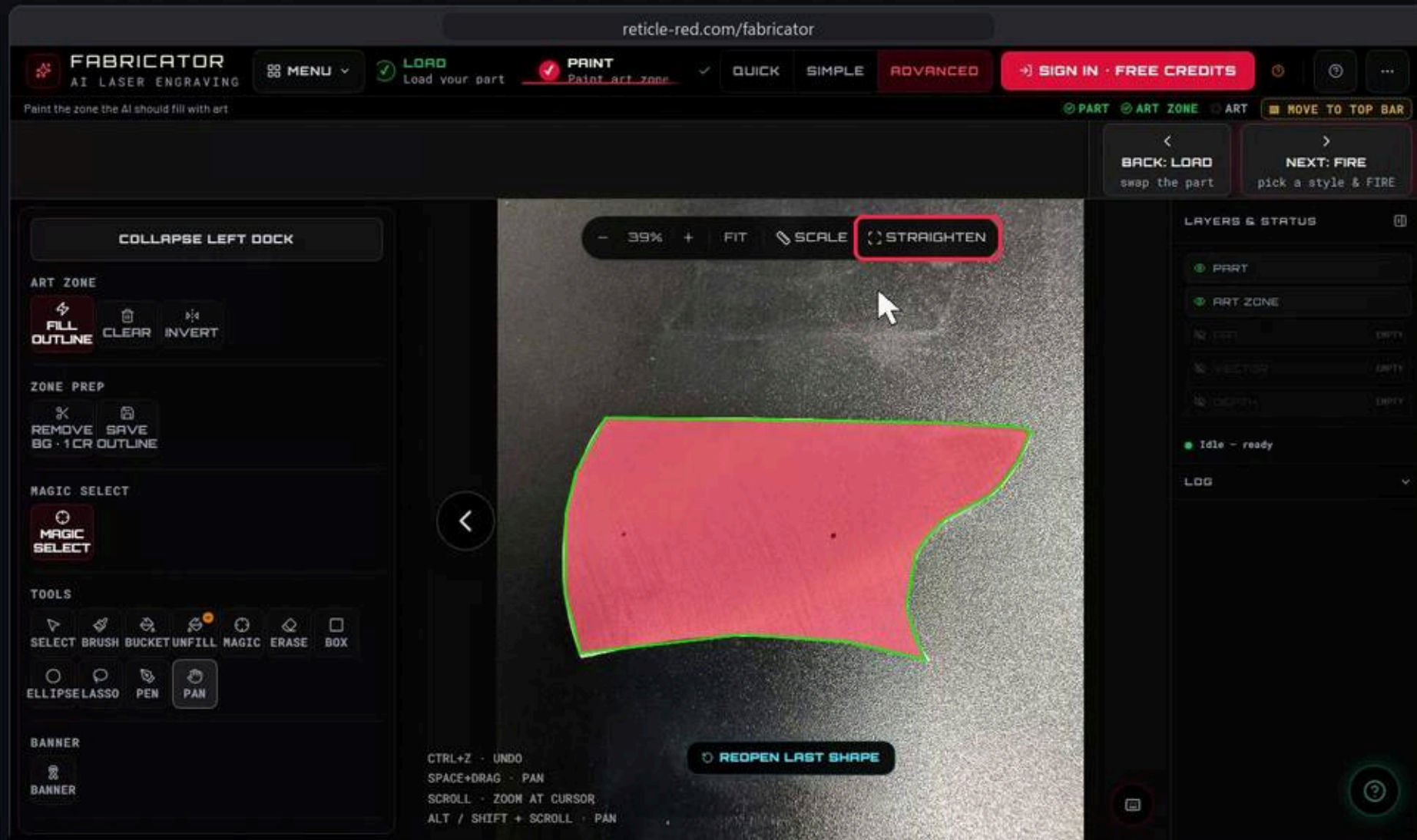
Your part, traced

Jim's bolster, photographed with a phone and traced as the art zone.

Now tell Reticle Red how big it really is.

RETICLE RED · FABRICATOR TUTORIAL

Part size and exact holes — Type width and height, then place holes by the number



STEP 2 OF 9

Open STRAIGHTEN

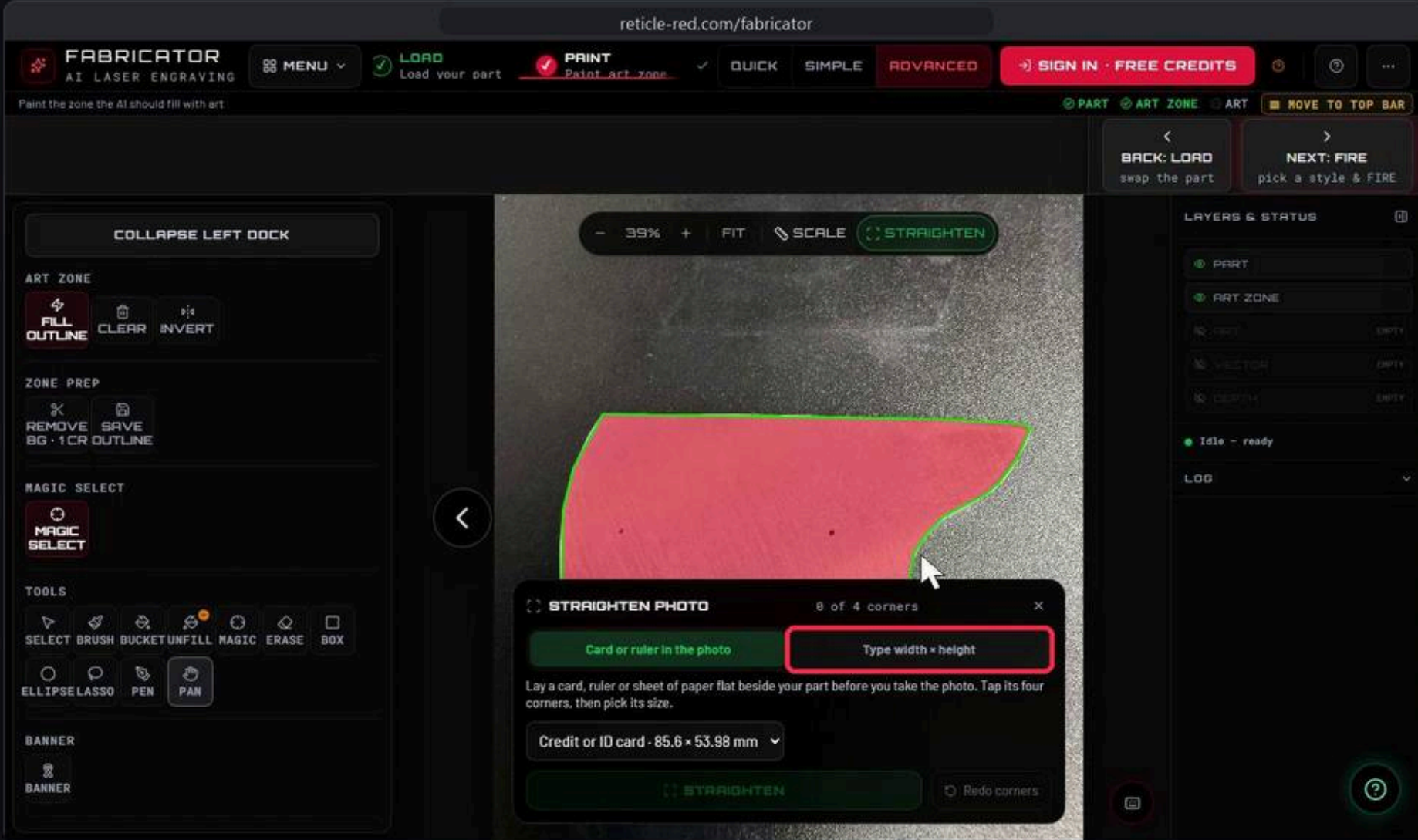
The new STRAIGHTEN button sits beside SCALE above the canvas, on every step.

CLOSE-UP



RETICLE RED - FABRICATOR TUTORIAL

Part size and exact holes — Type width and height, then place holes by the number



STEP 3 OF 9

No card in the photo? Type the size

Measure the part with calipers or a ruler. Type its long edge first.

CLOSE-UP

Type width × height

be your part before you take the photo. Tap its four

RETICLE RED · FABRICATOR TUTORIAL

Part size and exact holes — Type width and height, then place holes by the number

The screenshot shows the web interface of reticle-red.com/fabricator. The top navigation bar includes the 'FABRICATOR' logo, a 'MENU' dropdown, and buttons for 'LOAD', 'PRINT', 'QUICK', 'SIMPLE', and 'ADVANCED'. A 'SIGN IN · FREE CREDITS' button is also present. The main workspace displays a photo of a part with a 'STRAIGHTEN' button. A 'STRAIGHTEN PHOTO' dialog box is open, prompting the user to enter the width and height of the part. The width is set to 3.25 in, and the height is set to 1.696 in. The dialog also includes instructions on how to use the tool and a 'Done' button.

reticle-red.com/fabricator

FABRICATOR
AI LASER ENGRAVING

MENU **LOAD** **PRINT** **QUICK** **SIMPLE** **ADVANCED** **SIGN IN · FREE CREDITS**

Paint the zone the AI should fill with art

ART ZONE
FILL OUTLINE CLEAR INVERT

ZONE PREP
REMOVE SAVE BG · 1CR OUTLINE

MAGIC SELECT
MAGIC SELECT

TOOLS
SELECT BRUSH BUCKET UNFILL MAGIC ERASE BOX
ELLIPSE LASSO PEN PAN

BANNER
BANNER

STRAIGHTEN PHOTO

Card or ruler in the photo Type width · height

No card in the photo? Measure your part and type its long edge, then its other side. Downloads come out at that exact width and height.

How wide is your part? (long edge)

3.25 in

Other side, measured (optional)

1.696 in

Photo taken at a slight angle? Measure the part's other side and type it here; the downloads stretch to match.

Art zone: 3.250 × 1.696 in

Downloads open at this size in xTool, LightBurn and EZCAD, so they land on your outline.

Done

BACK: LOAD swap the part **NEXT: FIRE** pick a style & FIRE

LAYERS & STATUS

- PART
- ART ZONE
- ART
- VECTOR
- COORDS

Idle — ready

LOG

STEP 4 OF 9

Then the other side

The photo says 1.70 in. If your calipers read 1.78, type that: every download is stretched to match the real part.

CLOSE-UP

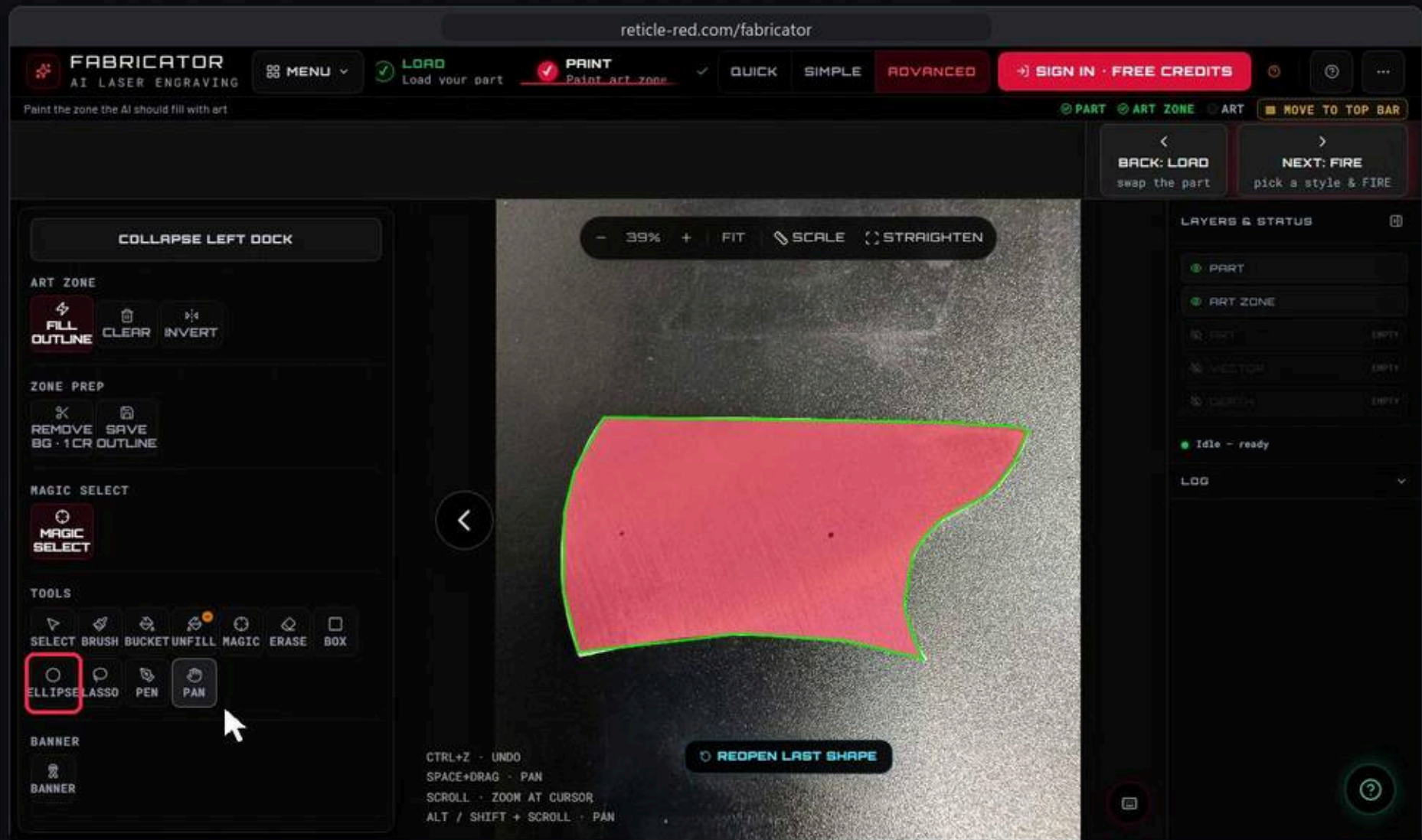
Other side, measured (optional)

1.696

Photo taken at a slight angle? Measure the part's other side and type it here; the downloads stretch to match.

RETICLE RED · FABRICATOR TUTORIAL

Part size and exact holes — Type width and height, then place holes by the number



STEP 5 OF 9

Exact-size holes

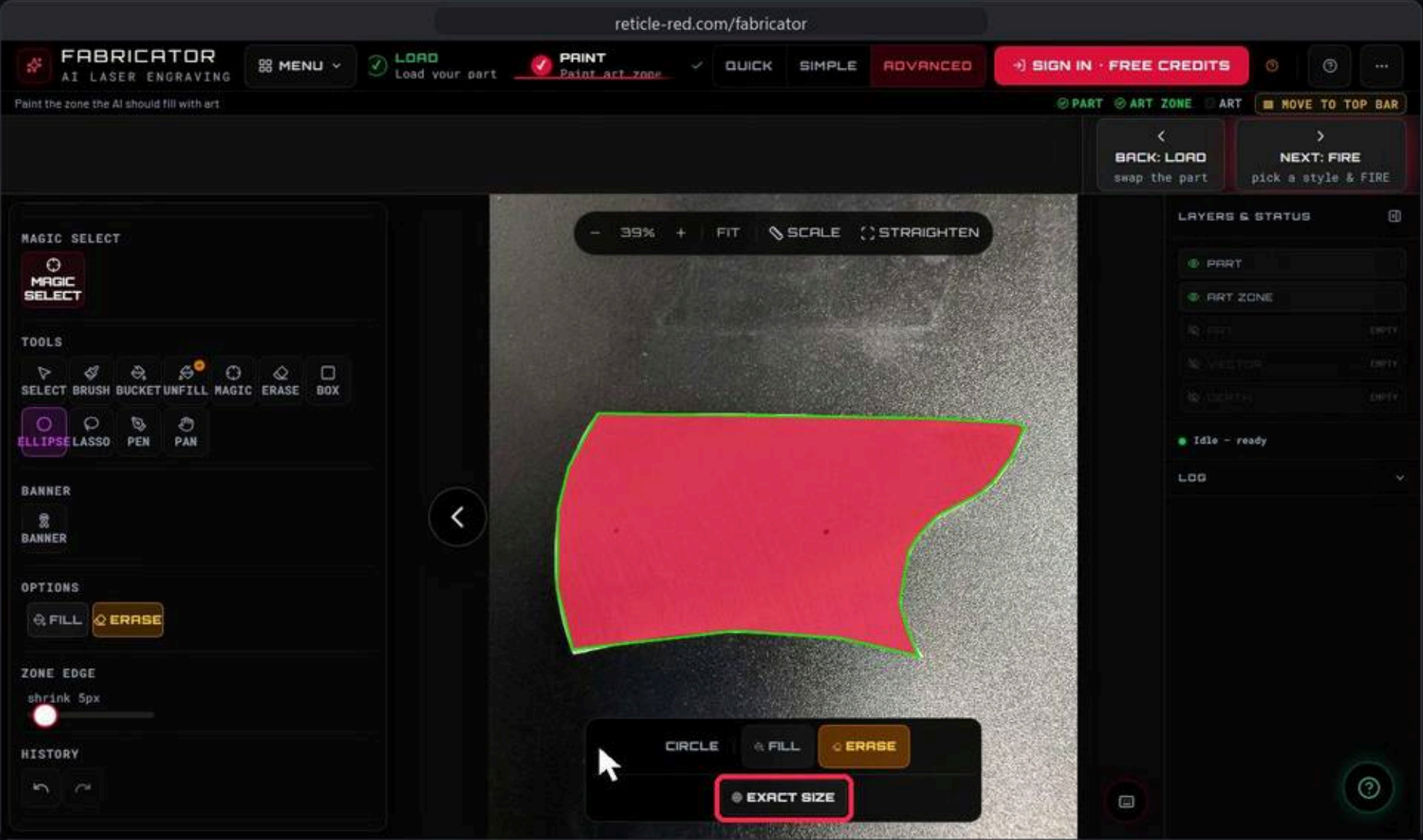
Pick ELLIPSE, then ERASE: the shape cuts a hole in the art zone.

CLOSE-UP



RETICLE RED · FABRICATOR TUTORIAL

Part size and exact holes — Type width and height, then place holes by the number



STEP 6 OF 9

EXACT SIZE

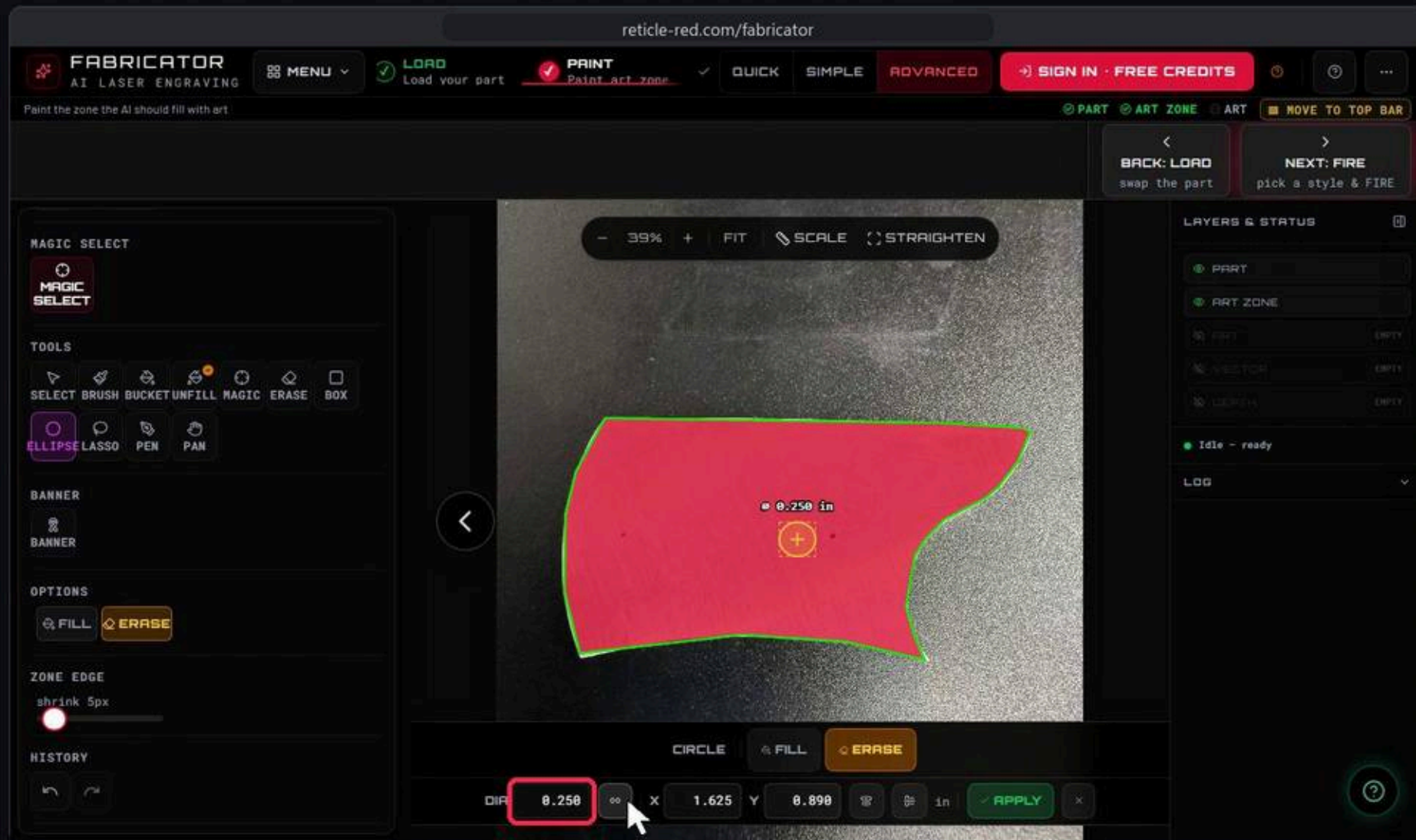
A circle appears at the center of the part, ready for numbers.

CLOSE-UP



RETICLE RED · FABRICATOR TUTORIAL

Part size and exact holes — Type width and height, then place holes by the number



STEP 7 OF 9

Type the size and where it goes

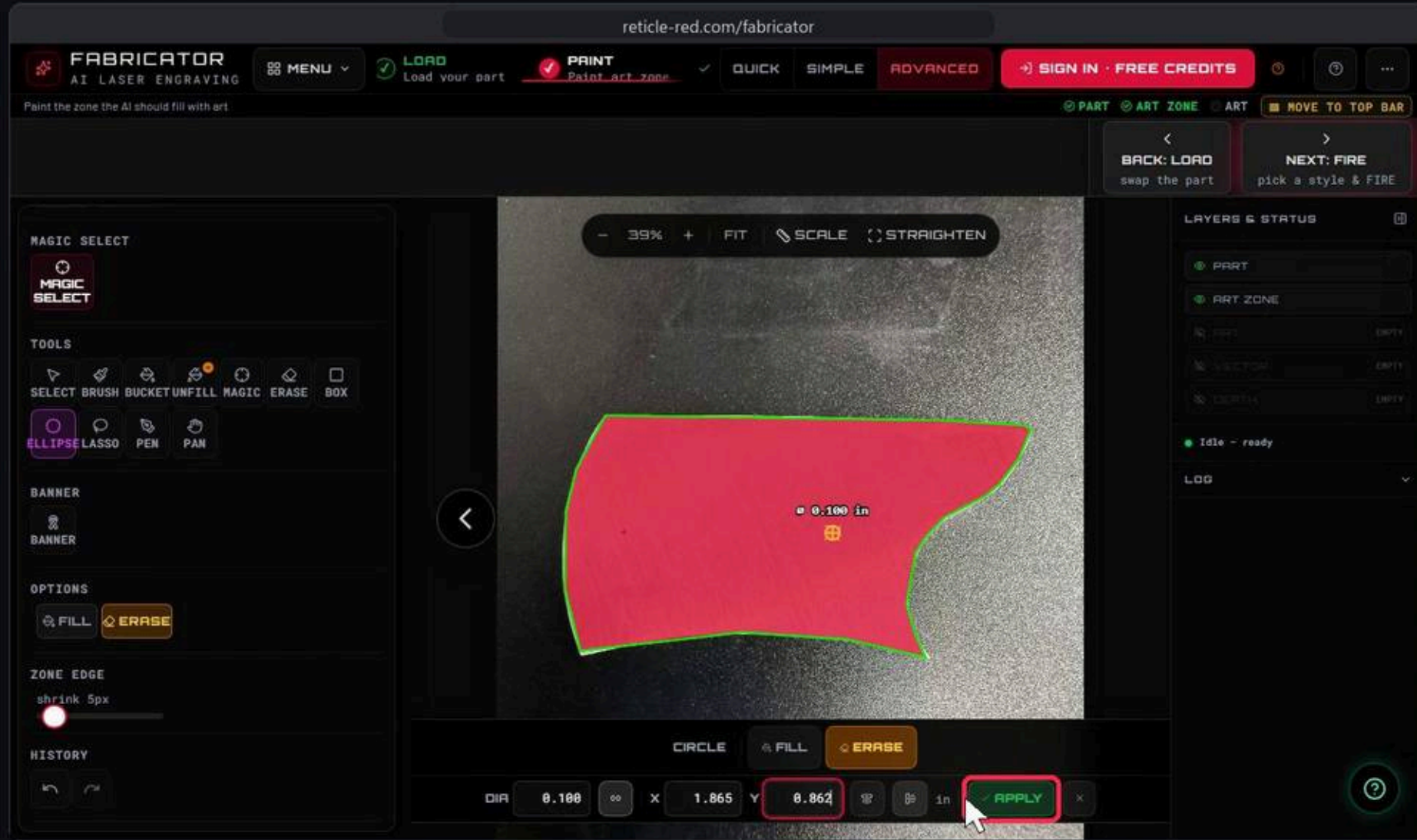
Diameter .100 in. X and Y are the hole's center, measured from the part's left and top edges.

CLOSE-UP



RETICLE RED · FABRICATOR TUTORIAL

Part size and exact holes — Type width and height, then place holes by the number

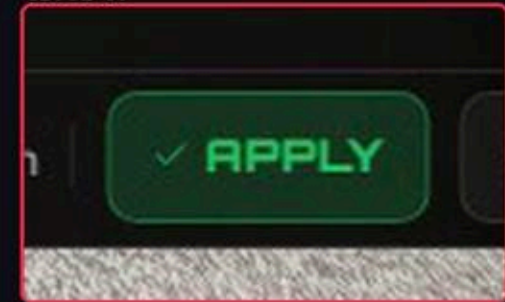


STEP 8 OF 9

APPLY

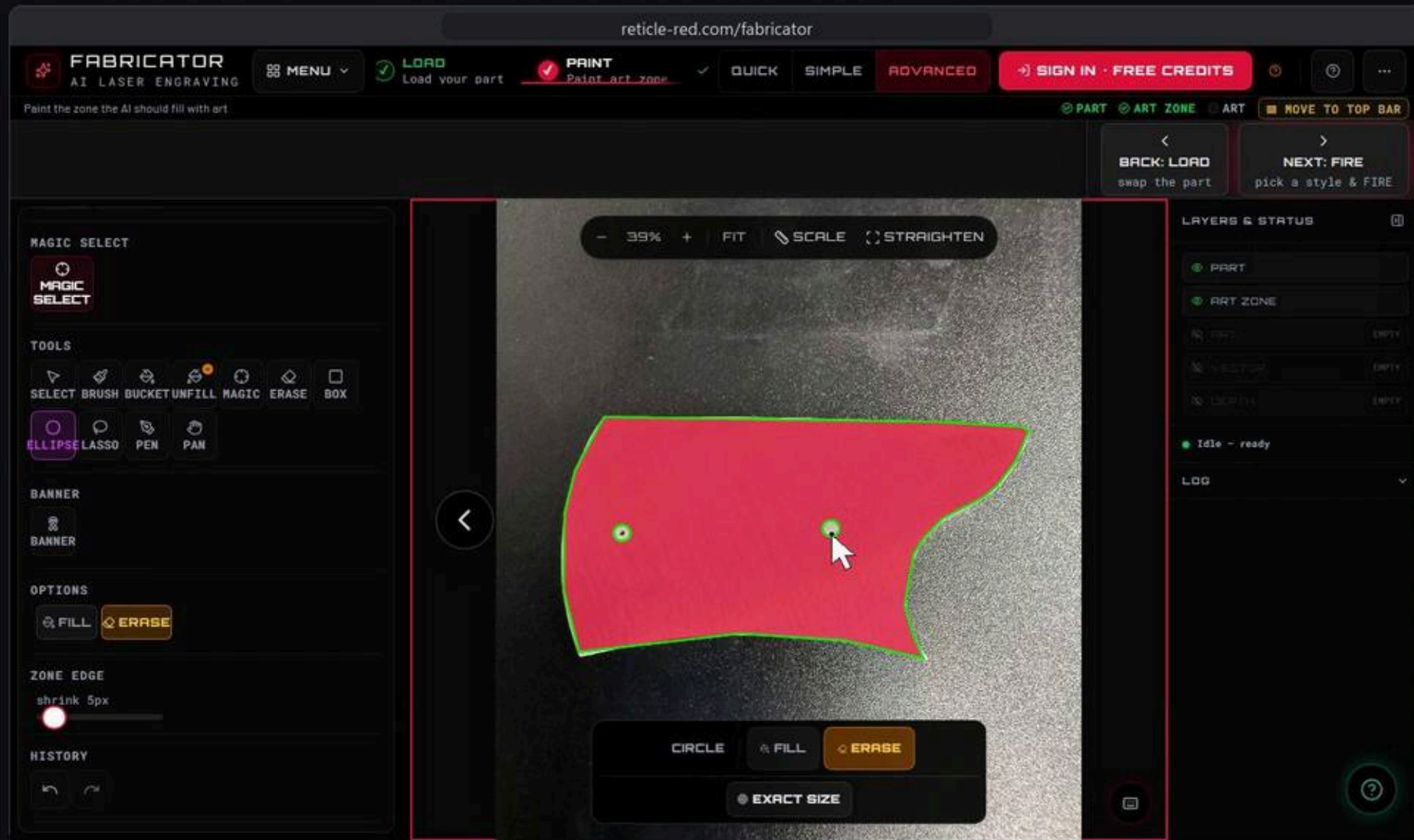
Apply (or Enter) cuts it. Center buttons put a hole in the middle of the part.

CLOSE-UP



RETICLE RED · FABRICATOR TUTORIAL

Part size and exact holes — Type width and height, then place holes by the number



STEP 9 OF 9

Move a hole later

Click an existing hole: it lifts back up with its numbers. Drag it, type new numbers, or nudge with the arrow keys (.01 in; Shift for .1).

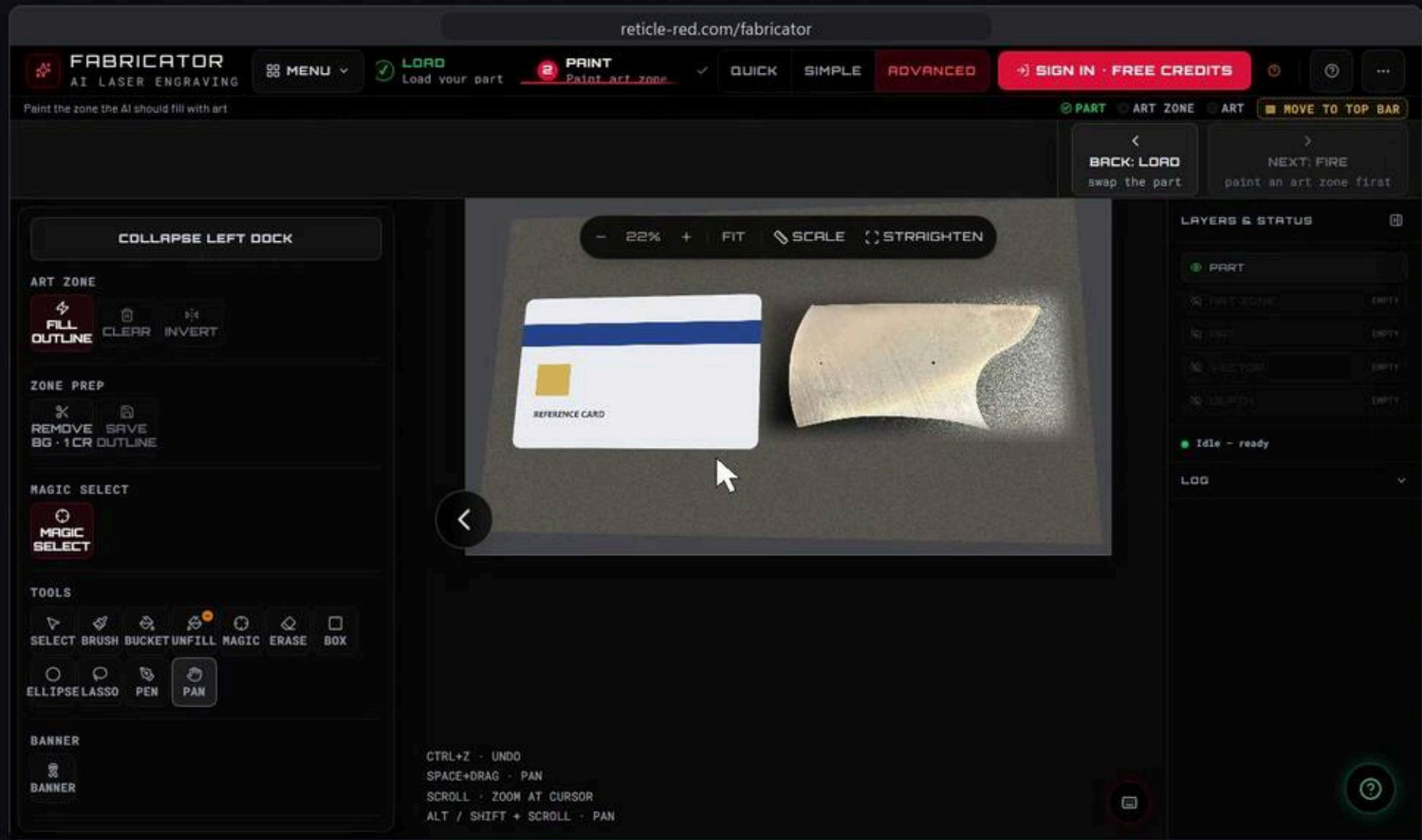
PART 2 OF 3

Straighten a phone photo

A card beside the part squares the photo and sets true size

RETICLE RED · FABRICATOR TUTORIAL

Straighten a phone photo — A card beside the part squares the photo and sets true size



STEP 1 OF 6

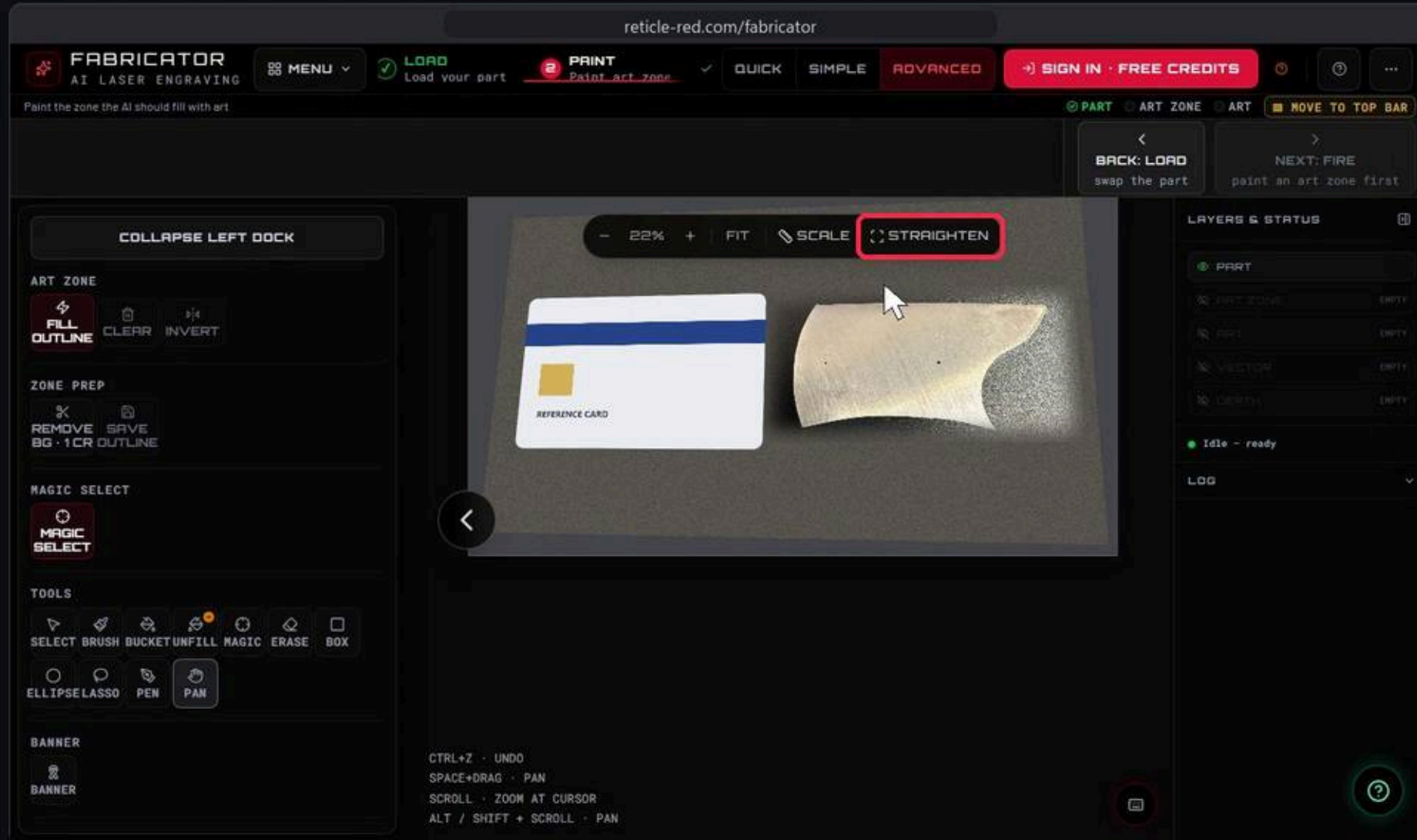
A phone photo at an angle

Hand-held photos lean: the part comes out a little the wrong shape, so the art will not quite fit it.

Lay a card beside the part before you shoot.

RETICLE RED · FABRICATOR TUTORIAL

Straighten a phone photo — A card beside the part squares the photo and sets true size



STEP 2 OF 6

Open STRAIGHTEN

Above the canvas, beside SCALE.

CLOSE-UP



RETICLE RED · FABRICATOR TUTORIAL

Straighten a phone photo — A card beside the part squares the photo and sets true size

reticle-red.com/fabricator

FABRICATOR
AI LASER ENGRAVING

MENU

LOAD
Load your part

PRINT
Paint art zone

QUICK

SIMPLE

ADVANCED

SIGN IN · FREE CREDITS

Paint the zone the AI should fill with art

PART

ART ZONE

ART

MOVE TO TOP BAR

BACK: LOAD
swap the part

NEXT: FIRE
paint an art zone first

COLLAPSE LEFT DOCK

ART ZONE
FILL
OUTLINE
CLEAR
INVERT

ZONE PREP
REMOVE
BG · 1CR OUTLINE
SAVE

MAGIC SELECT
MAGIC
SELECT

TOOLS
SELECT
BRUSH
BUCKET UNFILL
MAGIC
ERASE
BOX
ELLIPSE LASSO
PEN
PAN

BANNER
BANNER

22%
FIT
SCALE
STRAIGHTEN

1

2

3

4

REFERENCE CARD

LAYERS & STATUS
PART
PART ZONE
PART
VECTOR
DEPTH
Idle - ready
LOG

STRAIGHTEN PHOTO
4 of 4 corners

Card or ruler in the photo
Type width × height

Lay a card, ruler or sheet of paper flat beside your part before you take the photo. Tap its four corners, then pick its size.

Credit or ID card · 85.6 × 53.98 mm

STRAIGHTEN

Redo corners

STEP 3 OF 6

Tap the card's four corners

Any order. Drag a corner to fine-tune it; zoom in for a closer tap.

RETICLE RED · FABRICATOR TUTORIAL

Straighten a phone photo — A card beside the part squares the photo and sets true size

reticle-red.com/fabricator

FABRICATOR

AI LASER ENGRAVING

MENU

LOAD

PRINT

QUICK

SIMPLE

ADVANCED

SIGN IN · FREE CREDITS

Paint the zone the AI should fill with art

PART

ART ZONE

ART

MOVE TO TOP BAR

BACK: LOAD

NEXT: FIRE

COLLAPSE LEFT DOCK

ART ZONE

FULL OUTLINE

CLEAR

INVERT

ZONE PREP

REMOVE

SAVE

MAGIC SELECT

MAGIC SELECT

TOOLS

SELECT

BRUSH

BUCKET UNFILL

MAGIC

ERASE

BOX

ELLIPSE LASSO

PEN

PAN

BANNER

BANNER

22%

FIT

SCALE

STRAIGHTEN

1

2

3

4

REFERENCE CARD

STRAIGHTEN PHOTO

4 of 4 corners

Card or ruler in the photo

Type width × height

Lay a card, ruler or sheet of paper flat beside your part before you take the photo. Tap its four corners, then pick its size.

Credit or ID card · 85.6 × 53.98 mm

STRAIGHTEN

Redo corners

LAYERS & STATUS

PART

PART ZONE

EMPTY

EMPTY

VECTOR

EMPTY

DEPTH

EMPTY

Idle - ready

LOG

STEP 4 OF 6

Pick what you laid down

Credit card, business card, Letter or A4 paper, or type any size.

CLOSE-UP

corners, then pick its size.

Credit or ID card · 85.6 × 53.98 mm

RETICLE RED · FABRICATOR TUTORIAL

Straighten a phone photo — A card beside the part squares the photo and sets true size

reticle-red.com/fabricator

FABRICATOR

AI LASER ENGRAVING

MENU

LOAD

Load your part

PRINT

Paint art zone

QUICK

SIMPLE

ADVANCED

SIGN IN · FREE CREDITS

Paint the zone the AI should fill with art

PART

ART ZONE

ART

MOVE TO TOP BAR

BACK: LOAD

swap the part

NEXT: FIRE

paint an art zone first

COLLAPSE LEFT DOCK

ART ZONE

FILL OUTLINE

CLEAR

INVERT

ZONE PREP

REMOVE BG · 1CR OUTLINE

MAGIC SELECT

MAGIC SELECT

TOOLS

SELECT

BRUSH

BUCKET UNFILL

MAGIC

ERASE

BOX

ELLIPSE LASSO

PEN

PAN

BANNER

BANNER

22%

FIT

SCALE

STRAIGHTEN

1

2

3

4

REFERENCE CARD

STRAIGHTEN PHOTO

4 of 4 corners

Card or ruler in the photo

Type width • height

Lay a card, ruler or sheet of paper flat beside your part before you take the photo. Tap its four corners, then pick its size.

Credit or ID card · 85.6 × 53.98 mm

STRAIGHTEN

Redo corners

LAYERS & STATUS

PART

PART ZONE

EMPTY

ART

EMPTY

VECTOR

EMPTY

CORTEX

EMPTY

Idle — ready

LOG

STEP 5 OF 6

STRAIGHTEN

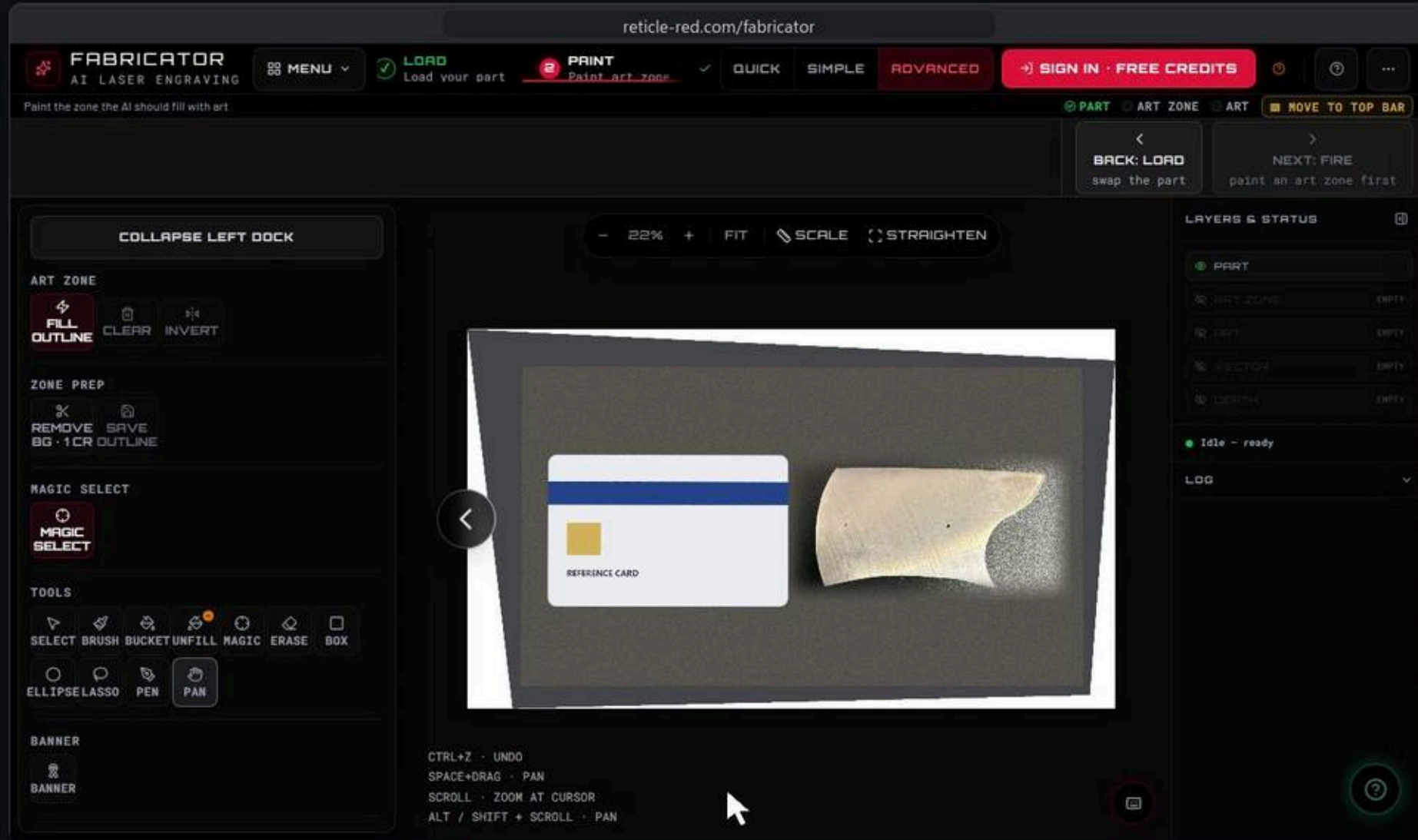
The photo is squared up and its true size is set from the card. Undo puts the original back.

CLOSE-UP



RETICLE RED · FABRICATOR TUTORIAL

Straighten a phone photo — A card beside the part squares the photo and sets true size



STEP 6 OF 6

Square, and true size

Now paint or trace the art zone as usual. The download comes out the real shape and size of the part.

PART 3 OF 3

The Download card

Size, then your laser software, then one click

RETICLE RED · FABRICATOR TUTORIAL

The Download card — Size, then your laser software, then one click

reticle-red.com/fabricator

FABRICATOR
AI LASER ENGRAVING

MENU

FIRE
Style & fire

EXPORT
Download

QUICK

SIMPLE

ADVANCED

SIGN IN · FREE CREDITS

Download laser-ready files — or FIRE AGAIN to iterate.

MORE (1)

BACK: PAINT
edit the art zone

PAINT AN ART ZONE
FIRST

FIRE AGAIN · 2 CR
same zone, new art

MACHINE FILES
B/W art · 98.43mm

LIGHTBURN
.LBRN2

XTOOL
.SVG IMAGE

EZCAD
.ZIP

Red outline for xTool + EZCAD

1 PART SIZE
How wide is your part? (long edge)

98.43 mm

Downloads open at this size in xTool, LightBurn and EZCAD, so they land on your outline.

2 DOWNLOAD FOR YOUR LASER SOFTWARE

LIGHTBURN .lbrn2
Vector paths at true size. Your part outline is on layer T1, which never burns: line it up with your part.

XTOOL CREATIVE SPACE .svg
Exact-detail image that keeps the finest lines, at true size. Line the red outline up with your part, then turn its output off.

EZCAD (GALVO) .zip
DXF vectors at true size for EZCAD2 and EZCAD3. Line the red outline up with your part, then turn its pen off.

Add a red locating outline to xTool and EZCAD files
Your part outline as a red line: line it up with your part, then turn that layer off (or delete it) before you burn. LightBurn files always have it on a layer that never burns.

OTHER SOFTWARE

VECTOR SVG

ART PNG

16% FIT SCALE STRAIGHTEN

CTRL+Z · UNDO
SPACE+DRAG · PAN
SCROLL · ZOOM AT CURSOR
ALT / SHIFT + SCROLL · PAN

LAYERS & STATUS

PART

PART ZONE

ART

VECTOR

DEPTH

Idle - ready

LOG

STEP 1 OF 5

The Download card

EXPORT now opens with two plain questions: how big is the part, and which program do you burn with.

CLOSE-UP

1 PART SIZE
How wide is your part? (long edge)

98.43 mm

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OTHER SOFTWARE

VECTOR SVG

ART PNG

RETICLE RED · FABRICATOR TUTORIAL

The Download card — Size, then your laser software, then one click

reticle-red.com/fabricator

FABRICATOR
AI LASER ENGRAVING

MENU

FIRE
Style & fire

EXPORT
Download

QUICK

SIMPLE

ADVANCED

SIGN IN · FREE CREDITS

Download laser-ready files — or FIRE AGAIN to iterate

MORE (1)

BACK: PAINT
edit the art zone

PAINT AN ART ZONE
FIRST →

FIRE AGAIN · 2 CR
same zone, new art

MACHINE FILES
B/W art · 98.43mm

LIGHTBURN
.LBRN2

XTOOL
.SVG IMAGE

EZCAD
.ZIP

Red outline for xTool + EZCAD

MOVE TO TOP BAR

1 PART SIZE

How wide is your part? (long edge)

98.43

mm

Downloads open at this size in xTool, LightBurn and EZCAD, so they land on your outline.

2 DOWNLOAD FOR YOUR LASER SOFTWARE

LIGHTBURN .lbrn2

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OTHER SOFTWARE

VECTOR SVG

ART PNG

16% + FIT SCALE STRAIGHTEN

CTRL+Z · UNDO
SPACE+DRAG · PAN
SCROLL · ZOOM AT CURSOR
ALT / SHIFT + SCROLL · PAN

LAYERS & STATUS

PART

PART ZONE

ART

VECTOR

DEPTH

Idle - ready

LOG

STEP 2 OF 5

1 · Part size

Type the long edge. The card shows the finished art-zone size so you can check it against the part.

CLOSE-UP

How wide is your part? (long edge)

98.43

Downloads open at this size in xTool, LightBurn and

RETICLE RED · FABRICATOR TUTORIAL

The Download card — Size, then your laser software, then one click

reticle-red.com/fabricator

FABRICATOR
AI LASER ENGRAVING

MENU

FIRE
Style & fire

EXPORT
Download

QUICK

SIMPLE

ADVANCED

SIGN IN · FREE CREDITS

Download laser-ready files — or FIRE AGAIN to iterate

MORE (1)

BACK: PAINT
edit the art zone

PAINT AN ART ZONE
FIRST

FIRE AGAIN · 2 CR
same zone, new art

MACHINE FILES

8/W art - 98.4mm

LIGHTBURN
.LBRN2

XTOOL
.SVG IMAGE

EZCAD
.ZIP

Red outline for xTool + EZCAD

1 PART SIZE

How wide is your part? (long edge)

98.4

mm

Downloads open at this size in xTool, LightBurn and EZCAD, so they land on your outline.

2 DOWNLOAD FOR YOUR LASER SOFTWARE

LIGHTBURN .lbrn2

Vector paths at true size. Your part outline is on layer T1, which never burns: line it up with your part.

XTOOL CREATIVE SPACE .svg

Exact-detail image that keeps the finest lines, at true size. Line the red outline up with your part, then turn its output off.

EZCAD (GALVO) .zip

DXF vectors at true size for EZCAD2 and EZCAD3. Line the red outline up with your part, then turn its pen off.

Add a red locating outline to xTool and EZCAD files

Your part outline as a red line: line it up with your part, then turn that layer off (or delete it) before you burn. LightBurn files always have it on a layer that never burns.

OTHER SOFTWARE

VECTOR SVG

ART PNG

16% FIT SCALE STRAIGHTEN



CTRL+Z · UNDO
SPACE+DRAG · PAN
SCROLL · ZOOM AT CURSOR
ALT / SHIFT + SCROLL · PAN

LAYERS & STATUS

PART

ART ZONE

ART

VECTOR

DEPTH

Idle - ready

LOG

STEP 3 OF 5

2 · Your laser software

One row per program, each saying what the file holds and how to line it up. Click a row to download.

CLOSE-UP

so they land on your outline.

2 DOWNLOAD FOR YOUR LASER SOFTWARE

LIGHTBURN .lbrn2

Vector paths at true size. Your part outline is on layer T1, which never burns: line it up with your part.

XTOOL CREATIVE SPACE .svg

Exact-detail image that keeps the finest lines, at true size. Line the red outline up with your part, then turn its output off.

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OTHER SOFTWARE

RETICLE RED · FABRICATOR TUTORIAL

The Download card — Size, then your laser software, then one click

reticle-red.com/fabricator

FABRICATOR
AI LASER ENGRAVING

MENU

FIRE
Style & fire

EXPORT
Download

QUICK

SIMPLE

ADVANCED

SIGN IN · FREE CREDITS

Download laser-ready files — or FIRE AGAIN to iterate.

MORE (11)

BACK: PAINT
edit the art zone

PAINT AN ART ZONE
FIRST →

FIRE AGAIN · 2 CR
same zone, new art

MACHINE FILES

LIGHTBURN
.LBRN2

XTOOL
.SVG IMAGE

EZCAD
.ZIP

MOVE TO TOP BAR

B/W art - 98.4mm

Red outline for xTool + EZCAD

1 PART SIZE

How wide is your part? (long edge)

98.4

mm

Downloads open at this size in xTool, LightBurn and EZCAD, so they land on your outline.

2 DOWNLOAD FOR YOUR LASER SOFTWARE

LIGHTBURN .lbrn2

Vector paths at true size. Your part outline is on layer T1, which never burns: line it up with your part.

XTOOL CREATIVE SPACE .svg

Exact-detail image that keeps the finest lines, at true size. Line the red outline up with your part, then turn its output off.

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DXF vectors at true size for EZCAD2 and EZCAD3. Line the red outline up with your part, then turn its pen off.

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OTHER SOFTWARE

VECTOR SVG

ART PNG

16% FIT SCALE STRAIGHTEN



CTRL+Z · UNDO
SPACE+DRAG · PAN
SCROLL · ZOOM AT CURSOR
ALT / SHIFT + SCROLL · PAN

LAYERS & STATUS

PART

ART ZONE

ART

VECTOR

DEPTH

Idle - ready

LOG

STEP 4 OF 5

xTool: line up the red outline

The xTool file keeps every fine line. Line its red outline up with your part on the camera, then turn that layer's output off.

CLOSE-UP

XTOOL CREATIVE SPACE .svg

Exact-detail image that keeps the finest lines, at true size. Line the red outline up with your part, then turn its output off.

RETICLE RED · FABRICATOR TUTORIAL

The Download card — Size, then your laser software, then one click

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FABRICATOR
AI LASER ENGRAVING

MENU

FIRE
Style & fire

EXPORT
Download

QUICK

SIMPLE

ADVANCED

SIGN IN · FREE CREDITS

Download laser-ready files — or FIRE AGAIN to iterate

MORE (1)

BACK: PAINT
edit the art zone

PAINT AN ART ZONE
FIRST

FIRE AGAIN · 2 CR
same zone, new art

MACHINE FILES

LIGHTBURN
.LBRN2

XTOOL
.SVG IMAGE

EZCAD
.ZIP

MOVE TO TOP BAR

B/W art · 98.4mm

Red outline for xTool + EZCAD

1 PART SIZE

How wide is your part? (long edge)

98.4

mm

Downloads open at this size in xTool, LightBurn and EZCAD, so they land on your outline.

2 DOWNLOAD FOR YOUR LASER SOFTWARE

LIGHTBURN .lbrn2

Vector paths at true size. Your part outline is on layer T1, which never burns: line it up with your part.

XTOOL CREATIVE SPACE .svg

Exact-detail image that keeps the finest lines, at true size. Line the red outline up with your part, then turn its output off.

EZCAD (GALVO) .zip

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OTHER SOFTWARE

VECTOR SVG

ART PNG

16% FIT SCALE STRAIGHTEN



CTRL+Z · UNDO
SPACE+DRAG · PAN
SCROLL · ZOOM AT CURSOR
ALT / SHIFT + SCROLL · PAN

Layers & Status

PART

ART ZONE

ART

VECTOR

DEPTH

Idle - ready

LOG

STEP 5 OF 5

Other software

Vector SVG for editable vectors (Illustrator, Inkscape, or xTool if you want to edit lines). Art PNG for anything else.

CLOSE-UP

OTHER SOFTWARE

VECTOR SVG

Made for real parts

Create → The Fabricator

Thanks to Jim Clow for the bolster and the questions that built these tools.

More tutorials: reticle-red.com/tutorials

Narration: AI voice (ElevenLabs). Screens: Reticle Red v3.73 (the Download card on a local copy of the same release).