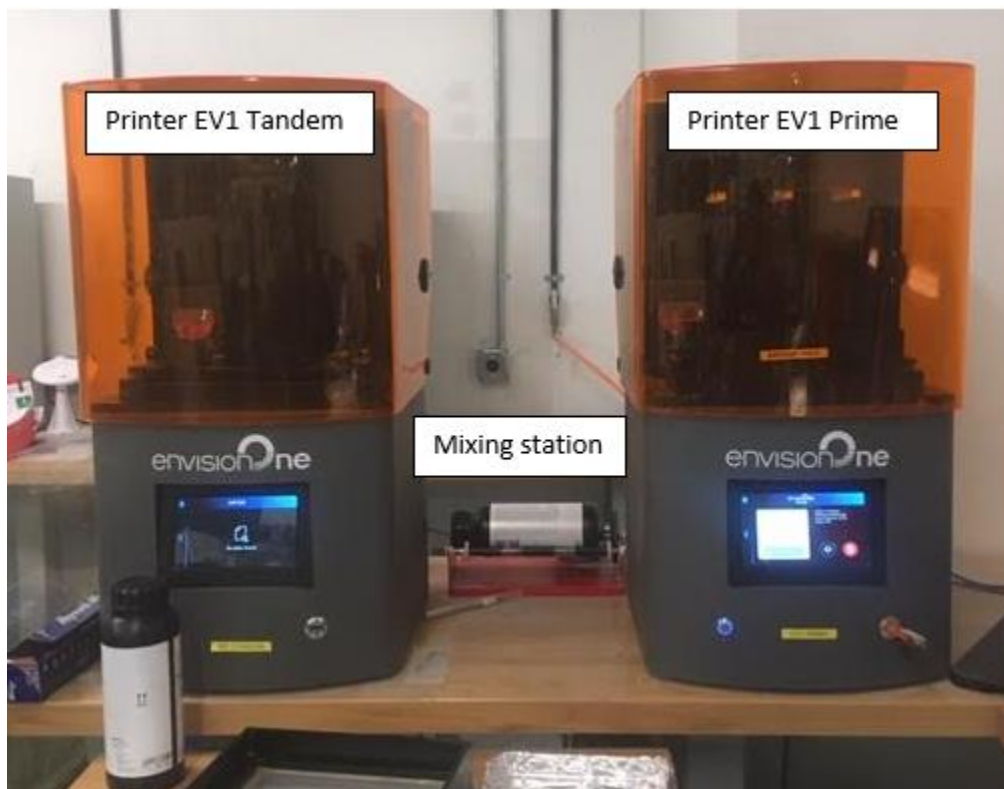# ENVISION ONE SOP

V2.0

Things you'll need:

1. PPE
2. Resin filter
3. 16oz cup
4. Resin

Layout

Training is required prior to operating Envision One printers. This guide is only for operators who have been trained. Casts require E cast resin setup and E cast RFID card. Models require E model resin and E model RFID card. Cleaning, setup, and priming process must be learned via practical training. It will be assumed you have been trained if you are using this documentation.

Frames and Cast Crowns

Prior to first use, be sure to check resin. If necessary, filter and top prior to use. If you remove the resin tray, be sure to prime the O2 again before printing (*__priming sequence is part of training__*). A full resin tray should look like this:

DO NOT OVERFILL. Resin must roll on mixing station for an hour.
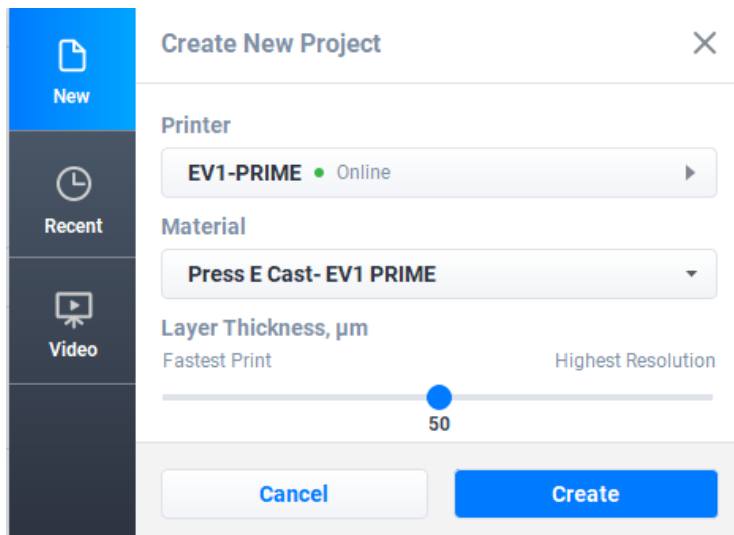
Nesting

Click on the orange icon to open the Envisionone nesting software .

Choose your printer from the drop down list, be sure the material is set to E cast, and create your new project.
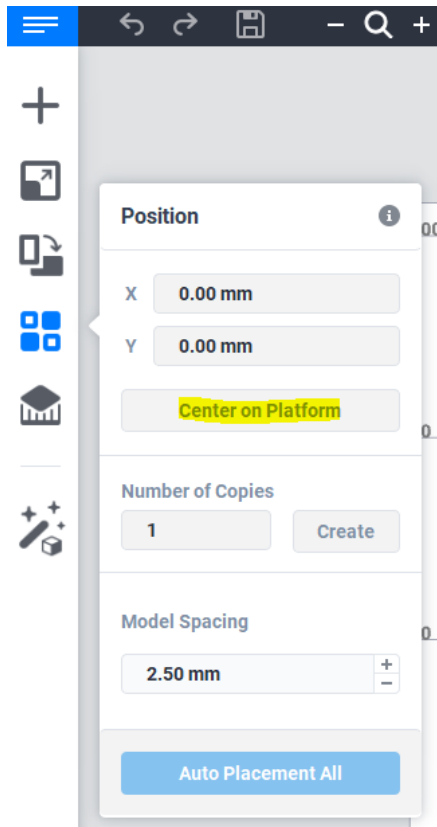
F7 all models prior to nesting. Click the position icon ⬛⬜ .

Click "Center on Platform"

Position ⓘ

X   0.00 mm

Y   0.00 mm

Center on Platform

Number of Copies

1   Create

Model Spacing

2.50 mm   +
            −

Auto Placement All
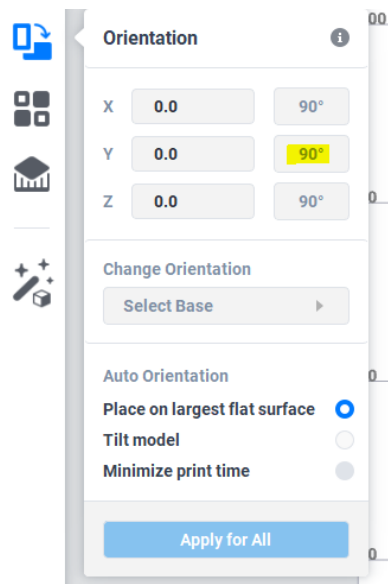
Click on the orientation icon   .
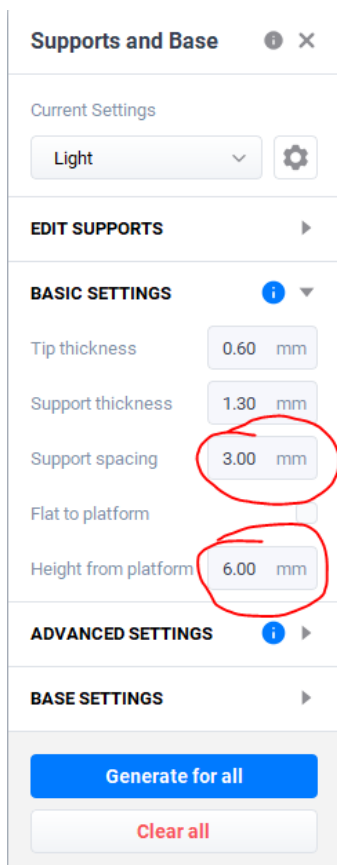
Click the Y 90degree button twice to flip the frame 180 degrees.

Click the supports icon .

Be sure support spacing is set to **3 or 4 prior to adding supports for casts**.

and add supports TO ONE MODEL AT A TIME PER TRAINING.

Verify proper print by viewing slices prior to printing. **This is part of training.**

Send job to printer after you change the name to our naming convention. **This is part of training**.

Save job after sent to printer in the envision folder with proper naming convention.

CAST CROWN PRINT DIRECTIONS

 Follow the same directions for Frames with the exception of the support settings. They should be set as to the following:
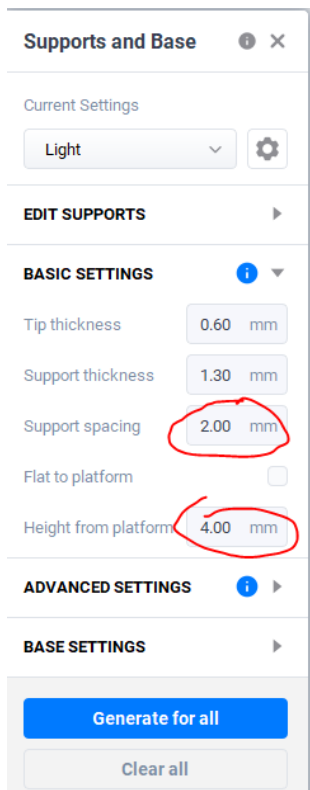
Be sure to inspect each crown and add supports if necessary. **This is part of training.**

What not to do

Do NOT try to nest more than one file at a time.

Do NOT forget to check resin for debris and level prior to printing.

Nest one frame at a time.

Add supports to areas with known issues (origin points, pads, clasps).

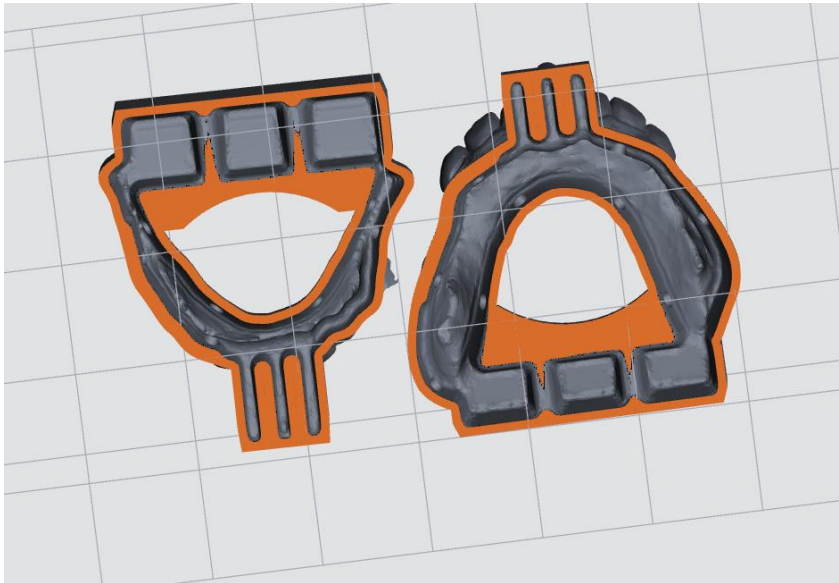Get someone to double check your work.

Don't rush.

Spend time up front so you don't have to do costly reprints later.

MODEL PRINT DIRECTIONS

F7 all models prior to nesting.

Models are nested without supports in model Z resin. Therefore, models must provide a flat base for successful printing as shown below:

Verify proper print by viewing slices prior to printing. **This is part of training.**

Send job to printer after you change the name to our naming convention. **This is part of training**.

Save job after sent to printer in the envision folder with proper naming convention.

What not to do

Do NOT try to nest more than one file at a time.

Do NOT forget to check resin for debris and level prior to printing.

Nest one model at a time.

Verify correct beam spacing

Get someone to double check your work.

Don't rush.

Spend time up front so you don't have to do costly reprints later.

POST PROCESSING DIRECTIONS

Casts and models must be removed from the build plate. **Proper training is required prior to attempting removal of prints from Envisiontec build plates.**

Upon removal, the casts/model should be placed in 99% alcohol baths. The casts will have one set of baths and the models will have a different set. They are NOT interchangeable. Please be sure cast baths are labeled "Dirty Cast" and "Cast Clean".

Are Casts require 60 seconds per bath of gentle agitation by hand per training in each bath.

Models require 180 seconds in the ultrasonic per each bath per training or 5 minutes on the orbital per bath.

Casts require a cure session at 90 seconds on the actual model with all supports intact.

Supports **MUST be removed** prior to delivery to our internal customer.

This allows for **the mandatory inspection for printing defects**.

Models require two 5 minute sessions or two 3000 flashes depending on the cure box used.

ultrasonic

cure light

HiLite® power 3D

cast & model

What not to do

Don't put casts in the ultra-sonic.

Don't forget the casts / models in the alcohol baths.

Don't over cure

Best practices

Pay attention to the details.

Do the process until it comes out clean.

Follow the directions and your training.

If you are unsure, stop and ask questions.