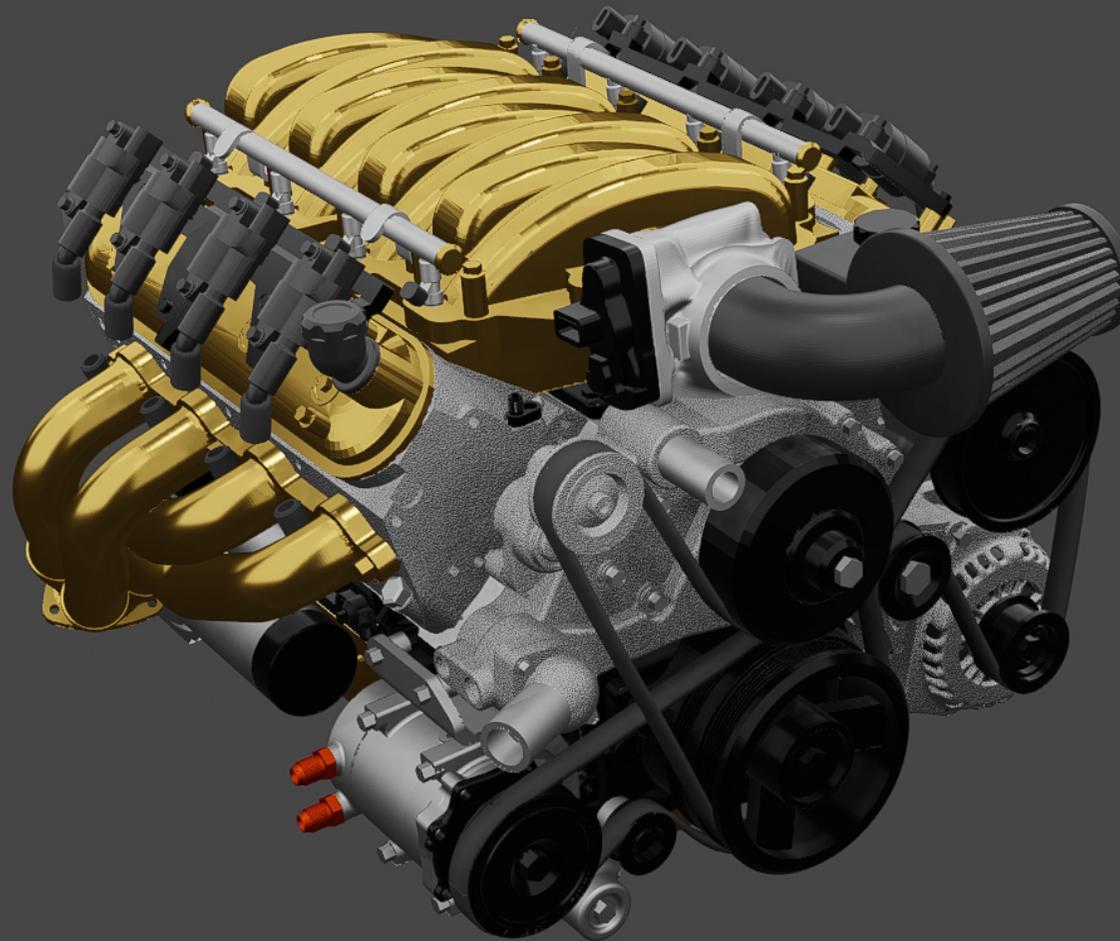


# CHEVY LS

RESIN MODEL KIT



*FulBore*  
Resin Models

# ASSEMBLY INSTRUCTIONS

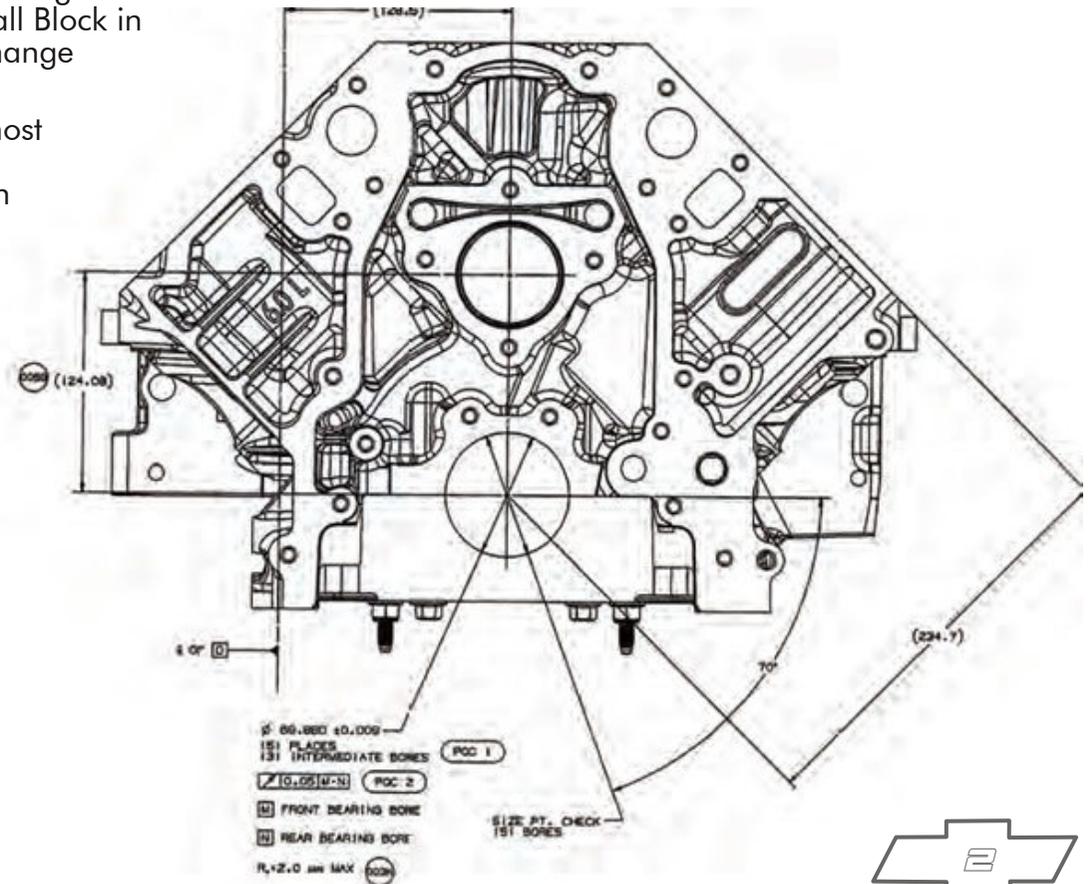
# CHEVY LS

"LS engine" is the colloquial name given to describe any Gen 3 or Gen 4 Small Block Chevrolet, including those that do not specifically include "LS" as part of their RPO code. Sometimes referred to as an "LSx", with the lower case "x" standing in for one of the many RPO code variations of the motor, the term can cause confusion since GM now sells an aftermarket LS cylinder block named "LSX" with a capital "X".

LS engines were a clean sheet modular design. Most components interchange between the Gen 3 and Gen 4 motors. LS motors share no interchangeable parts except connecting rod bearings & valve lifters with the Gen 1/2 Small Block Chevrolet engines. Likewise, while GM engineers clearly took design inspiration from the LS motor when creating their fifth Generation "LT" Small Block in 2014, it was predominantly a new design. There is almost no parts interchange between the LS and LT families.

All cars sold with LS motors were equipped with aluminium blocks while most trucks received cast iron blocks. LS engines enjoy several notable improvements over previous generations of small blocks. The lower section of the block incorporates deep side skirts along with 4-bolt cross-bolted main bearing caps and a structural cast aluminium oil pan. Nearly all LS motors were manufactured with high airflow aluminium cylinder heads, even in truck applications. The design uses long runner intake manifolds to enhance airflow within the engines operating range. These dry intake manifolds omit the coolant passages of earlier generations to minimise heat uptake in the air charge. They are made from a light weight yet durable nylon polymer. A large improvement was made to the ignition system by forgoing the camshaft driven distributor of the early small blocks in favour of valve cover mounted ignition coils, one for each cylinder. LS ignition timing is handled by the ECU via camshaft and crankshaft position sensors.

(Source: Wikipedia)



# A FEW THINGS TO KNOW BEFORE YOU START.



This kit requires a medium to high skill level. Even if you are an experienced model builder, *please read these instructions carefully.* I've tried to make the fitment of all the parts as perfect as possible, but in the end, this is a "home-made" kit, not Tamiya!! Please be

patient and take your time.

**Please take some time to read my prep and painting guide** available at [www.fulboremodels.com/downloads](http://www.fulboremodels.com/downloads)  
**3D printed parts can warp or deform during**

**transport or if stored incorrectly.** Very good quality resins have been used to produce the parts of this kit, however they need to be stored away from any heat source, and direct UV light. Prolonged exposure of the raw resin to sunlight or any other light containing UV can cause the resin to over-cure, dry out and become more brittle. **If parts become deformed, do not attempt to bend them.** Soak in hot tap water until soft, and reshape as required. Once the resin is painted it is very stable.

**Normal modelling glue won't work with 3D print resin, CA glue is required.**

**Each part of this model will need sanding and preparing** to remove layer lines and supports remnants from the 3D print process.

It's recommended to sand the larger components initially with 320 Grit wet & dry sandpaper, working up to min 600 Grit prior to priming.

**Test fit all parts before committing them to glue.**

**Clear parts** in this kit **appear cloudy** out of the box, **until a clear coat is applied, they become fully transparent.**

If you have any questions, or are not happy with any aspect of the model, please contact us first at [admin@fulboremodels.com](mailto:admin@fulboremodels.com), and I'll do my best to help.

## SAFETY FIRST



Always work in a well-ventilated area when working with the materials include in and required for the construction of this kit including adhesives, primers, paints, resin parts etc, , 3D printing resin is considered toxic and when printing these models, the recommended precautions are taken to avoid contact with the resin. Whilst the resin is considered safe to humans when cured, it is recommended that the necessary precautions are taken to prevent the inhalation of dust when sanding, cutting or filing resin. Wearing a dust



mask and working in a well-ventilated area is recommended as a minimum precaution. It is also recommended to wear safety glasses when cutting parts, to prevent pieces of resin ending up in your eyes. Please also follow all precautions on any products used to build your model, and be careful when using sharp tools.



# WHAT YOU'RE GOING TO NEED



Thick and Medium CA glue (Cyanoacrylate - super glue). (normal model glue will not work with resin). Foam Safe glue will be required for clear parts.



Tweezers of all shapes and sizes



Hobby Knife & "Sprue" Cutters – the finer & sharper the better, for removing parts from supports. Small scissors come in handy too.



Set of needle files, sanding sponges and sanding sticks for preparing and fitting parts.



Pin vice drill. Locator holes may need drilling out as sometimes resin remains trapped.



Rubber bands & a variety of small clamps (clothes pegs work too) for clamping pieces together after gluing.



Plastic putty. Some filling of defects may be required.



Many of the smaller parts of this kit don't require primer, and most acrylic paints will bond well to the resin. A quality primer however can help identify areas that may need a sand



Masking tape & masking gel



Painting clips



Quality hobby paint brushes

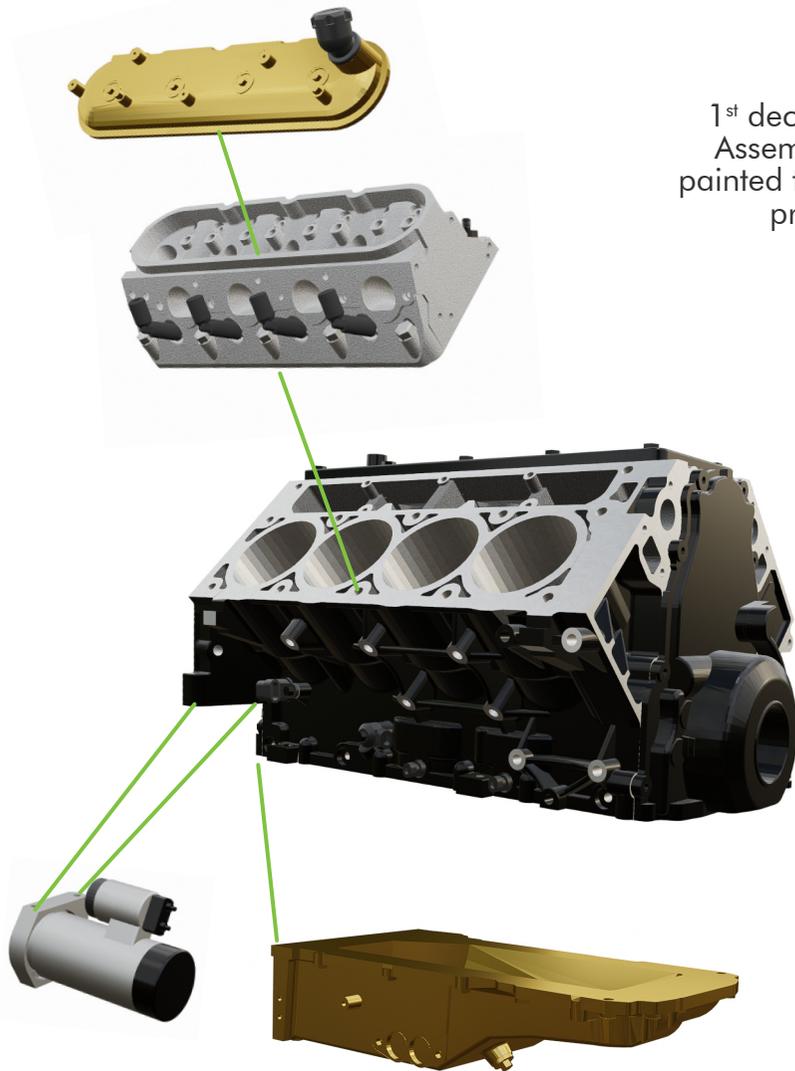


Many of the smaller parts of this kit can be painted using brushes, however it is recommended that an air-brush is used.



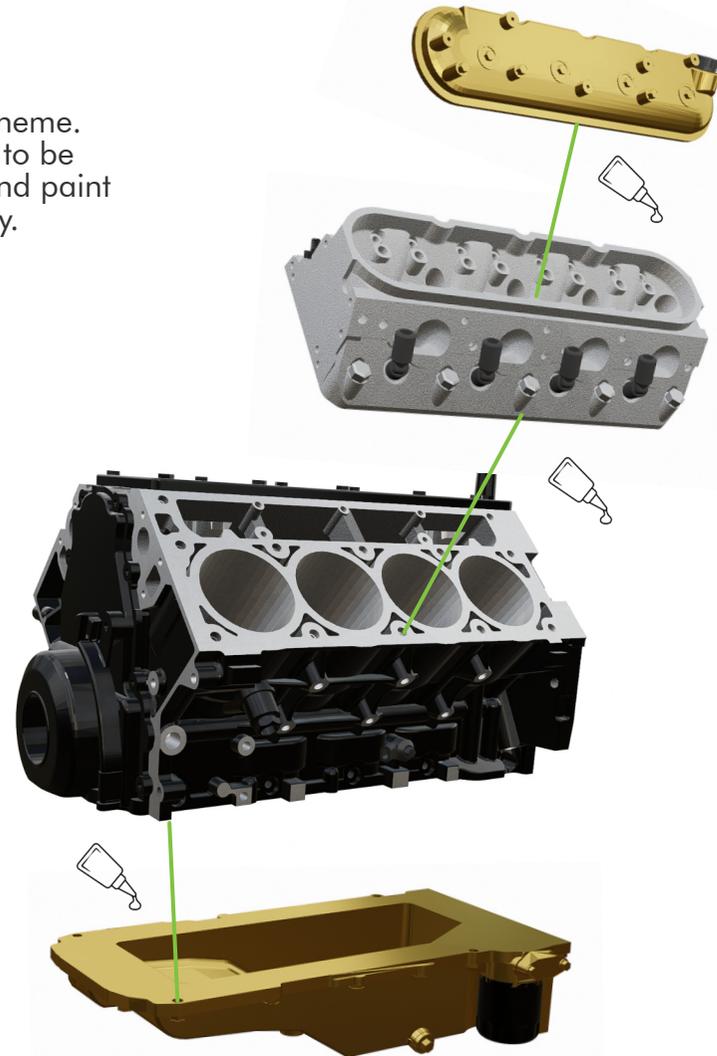
# STEP 1

## DR SIDE



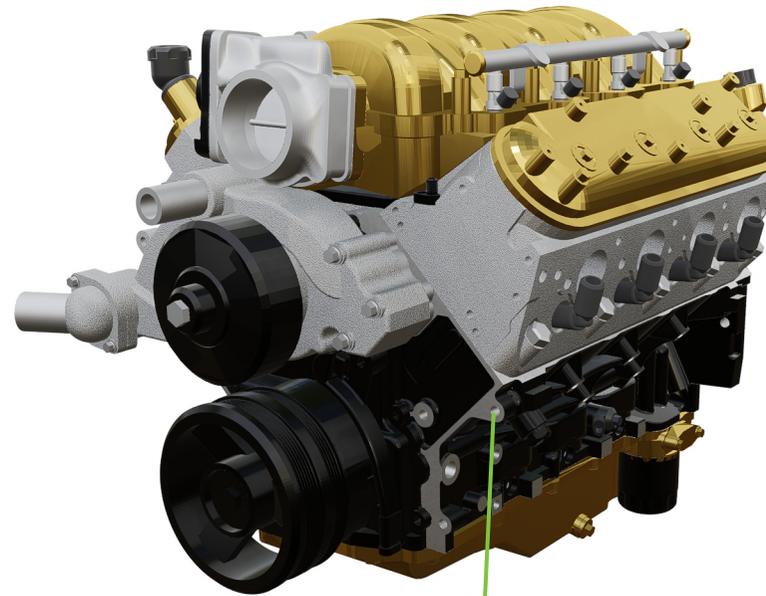
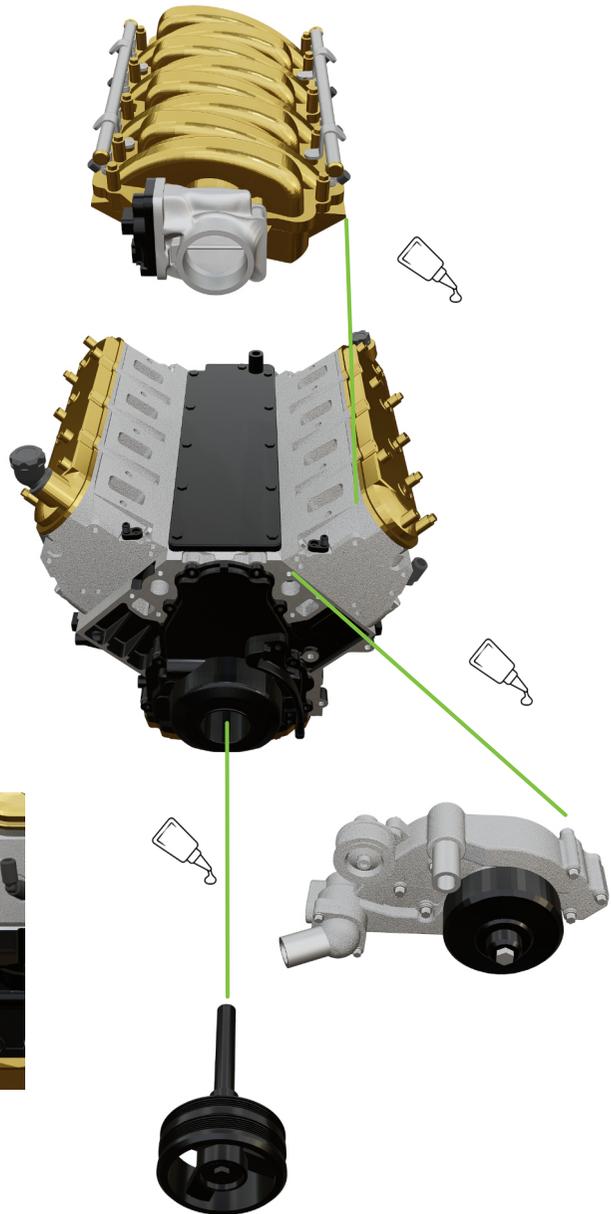
1<sup>st</sup> decide your colour scheme.  
Assemble parts that are to be painted the same colour and paint prior to full assembly.

## PASS SIDE

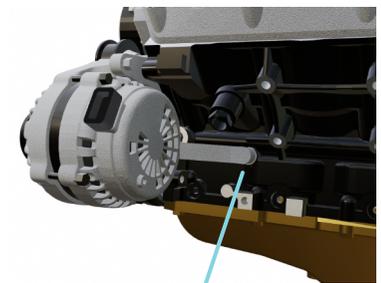


# STEP 2

# STEP 3



Crank shaft alignment

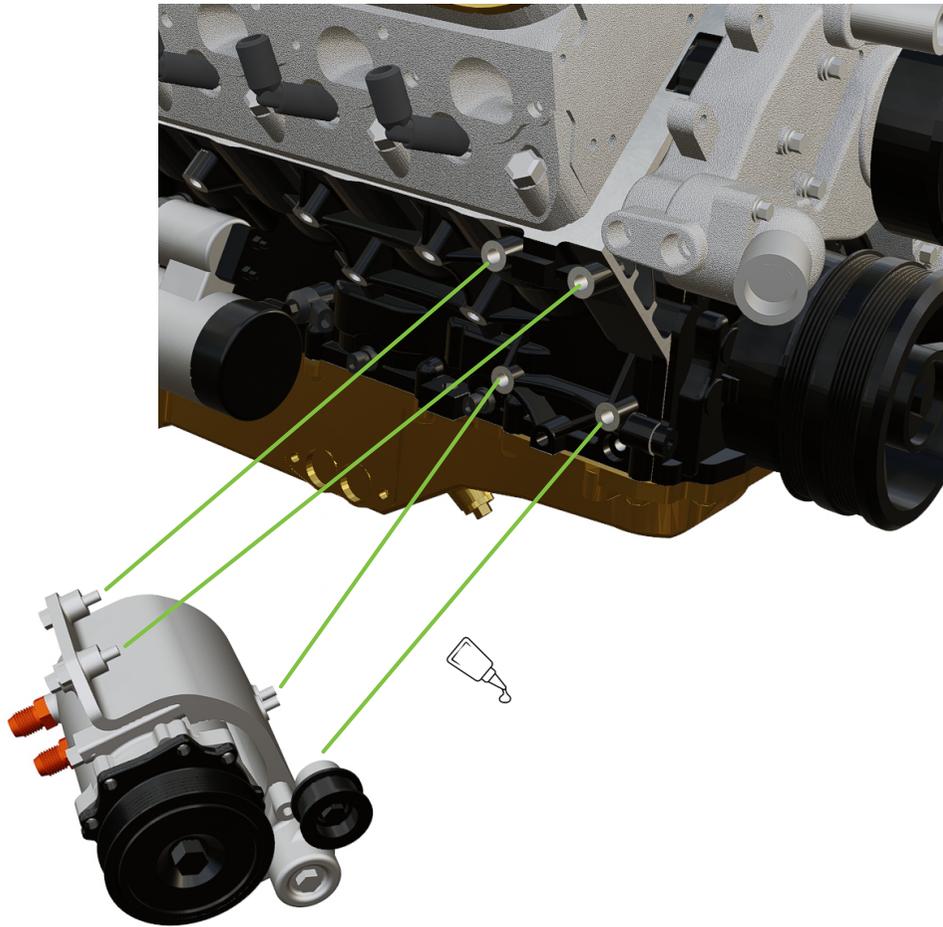


Rear of alternator showing block bracket location

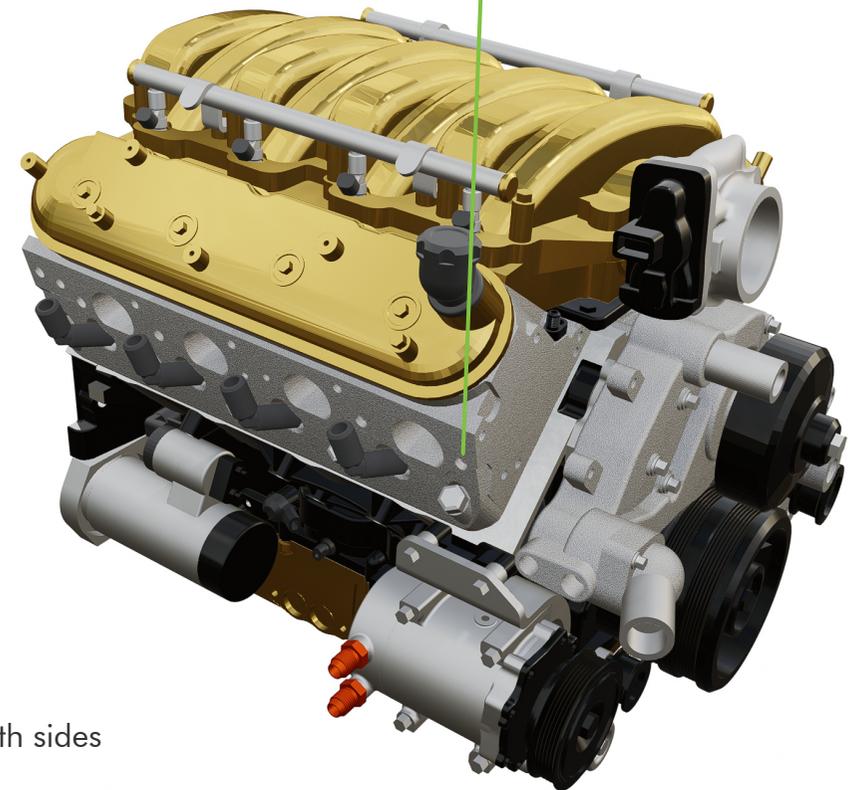


# STEP 4

# STEP 5



Lower down between  
spark plugs and head.  
Careful not to break the  
spark plugs

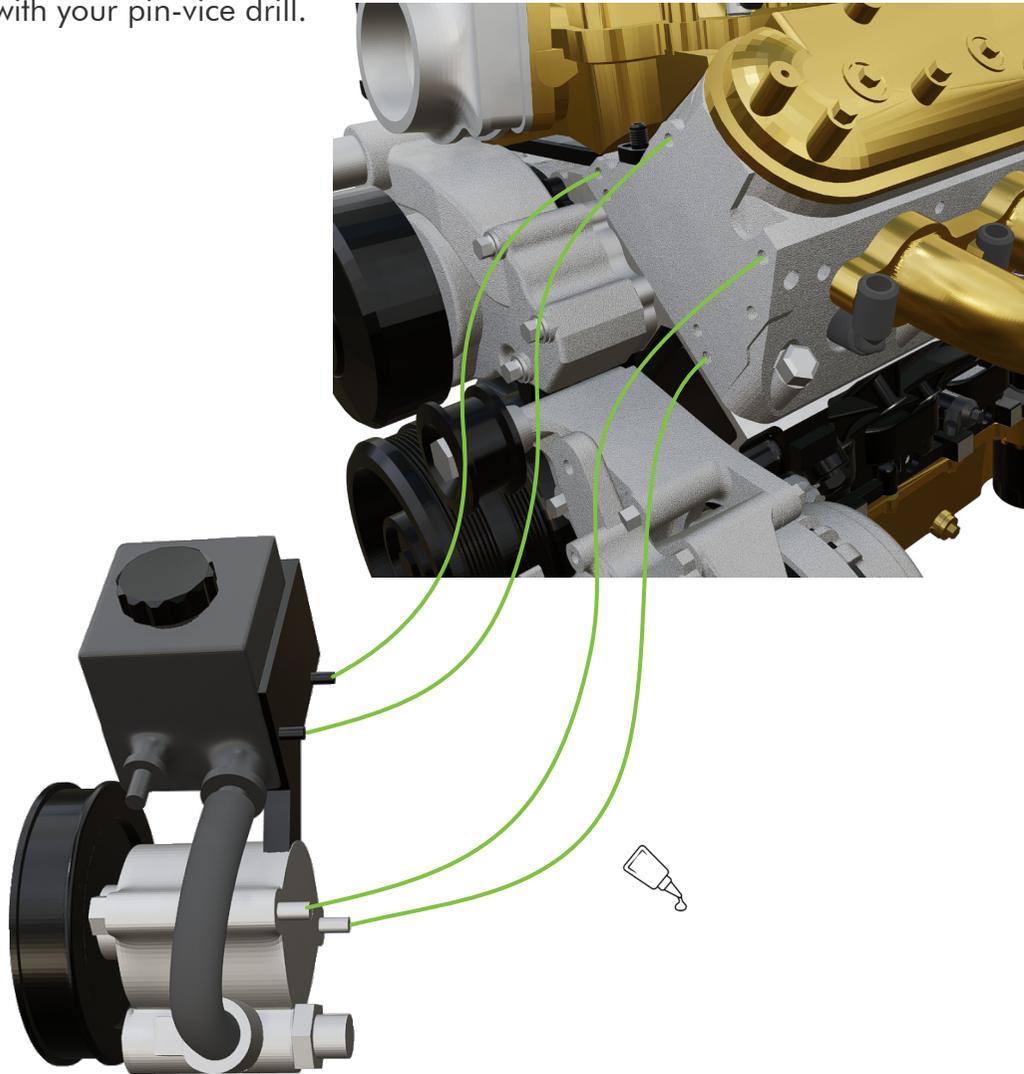


Both sides

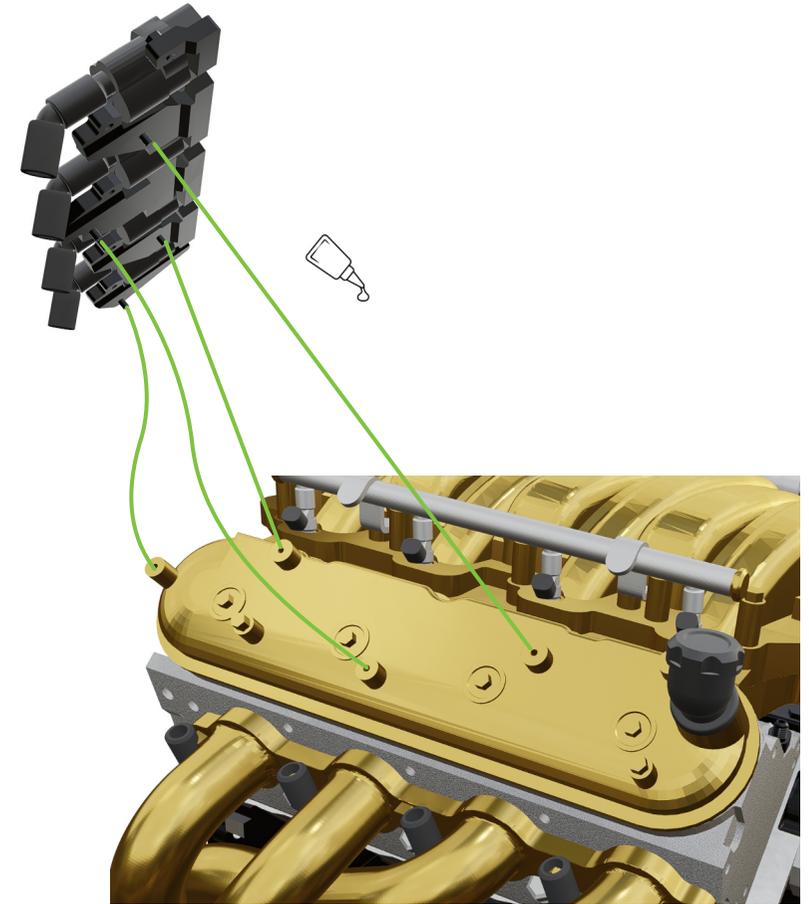


## STEP 6

You may need to "clean out" the holes in the head with your pin-vice drill.



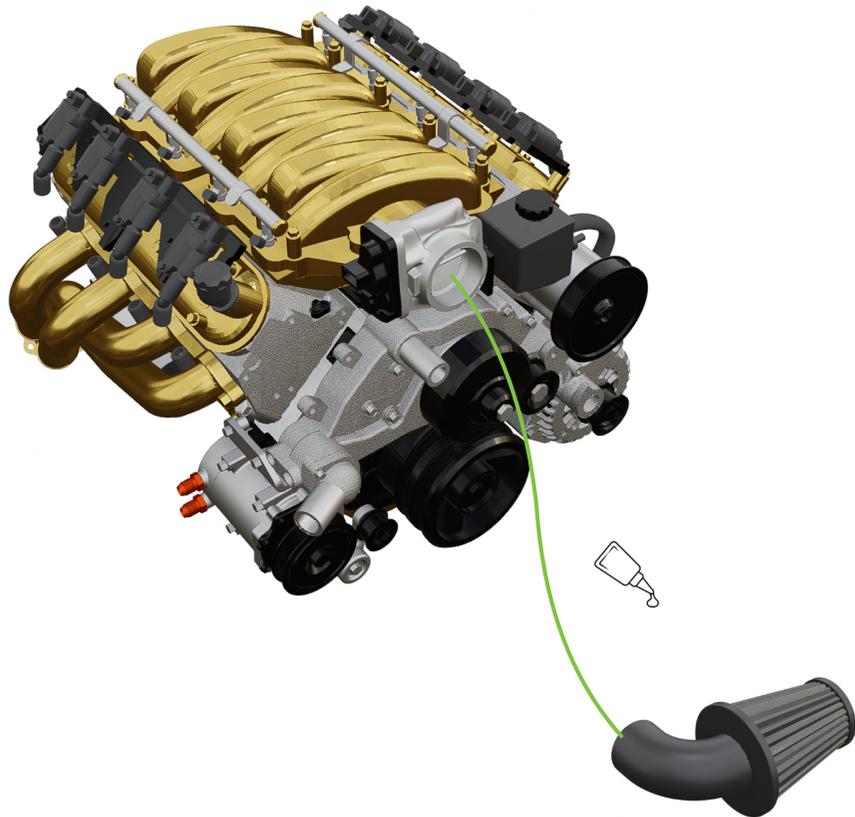
## STEP 7



You may need to "clean out" the holes in the rocker cover with your pin-vice drill.



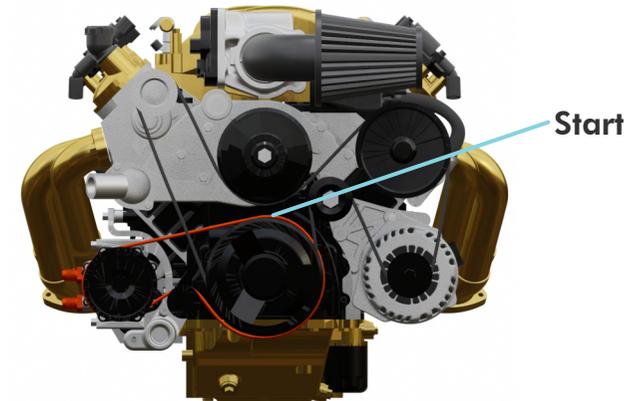
## STEP 8



## STEP 9

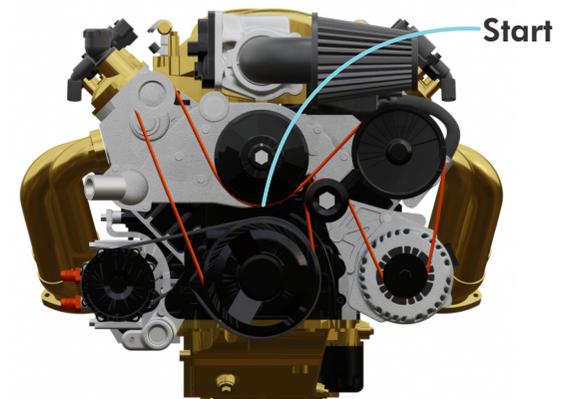
### AC BELT

A piece of elastic nylon has been provided in your kit. Cut to the approximate length required for each serpentine belt. Glue one end of the belt to the crank pulley where shown. Stretch slightly and glue at each contact point along the path shown back to the start. Trim excess prior to gluing the end.

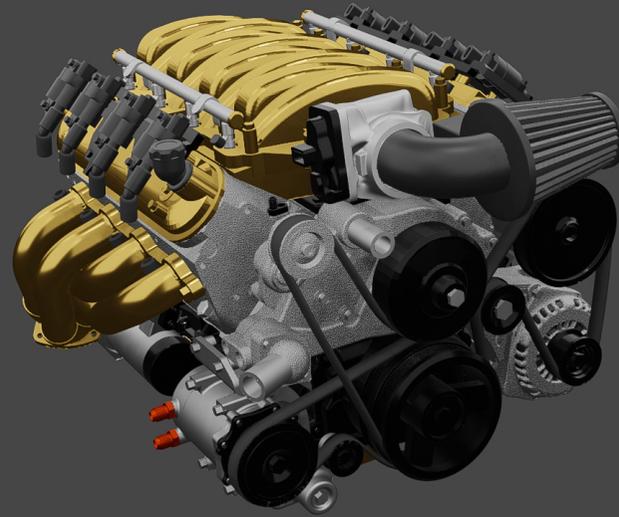


### MAIN BELT

Use the remainder of the elastic nylon. Glue one end of the belt to the water pump pulley where shown. Stretch slightly and glue at each contact point along the path shown back to the start. Trim excess prior to gluing the end.



**YOU'RE DONE!**



**CONGRATULATIONS. I SINCERELY HOPE YOU ENJOYED YOUR MODEL AND DIDN'T LOSE TOO MUCH HAIR IN THE PROCESS!**

**THANK YOU AGAIN FOR CHOOSING A FULBORE MODEL KIT I'D LOVE TO HEAR YOUR FEEDBACK OR SEE PHOTOS OF YOUR BUILD**

*[www.fulboremmodels.com](http://www.fulboremmodels.com)*



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