

Nathan Luis  
Joey Stickle  
STEM 2°  
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## Second Project Pegasus Progress Report

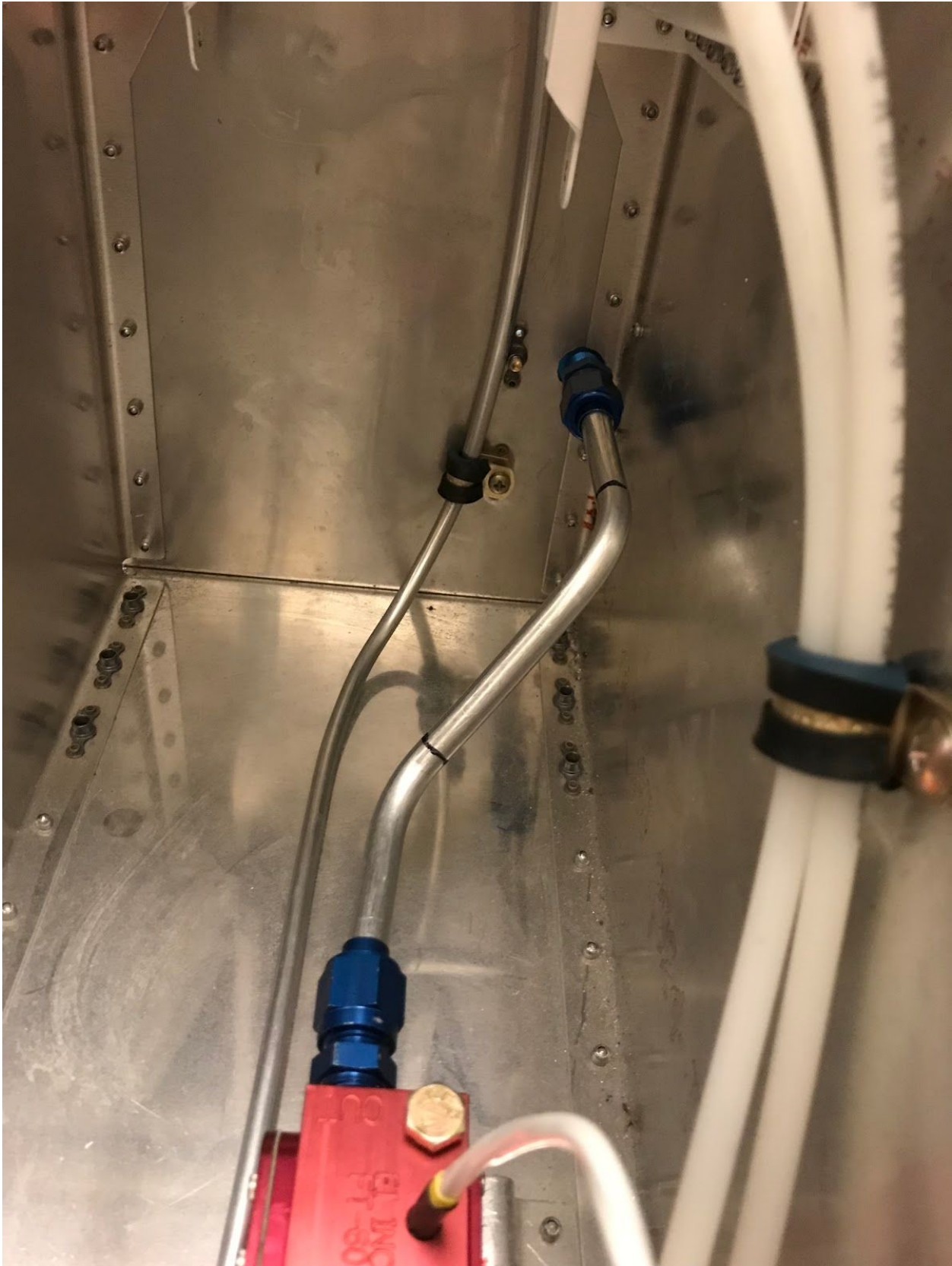
### **Fuselage Progress**

The first task we had to accomplish before working on the fuselage was to compare the progress on the plane with the progress that was signed off on in the master plans. There were some discrepancies between the two, so we had to take a decent amount of time to look through each page and check what was actually done on the plane, or what was marked as done that we still needed to do. This was also especially difficult because the fuselage had not been worked on for an entire year, so everything that had been done was completed two years ago.

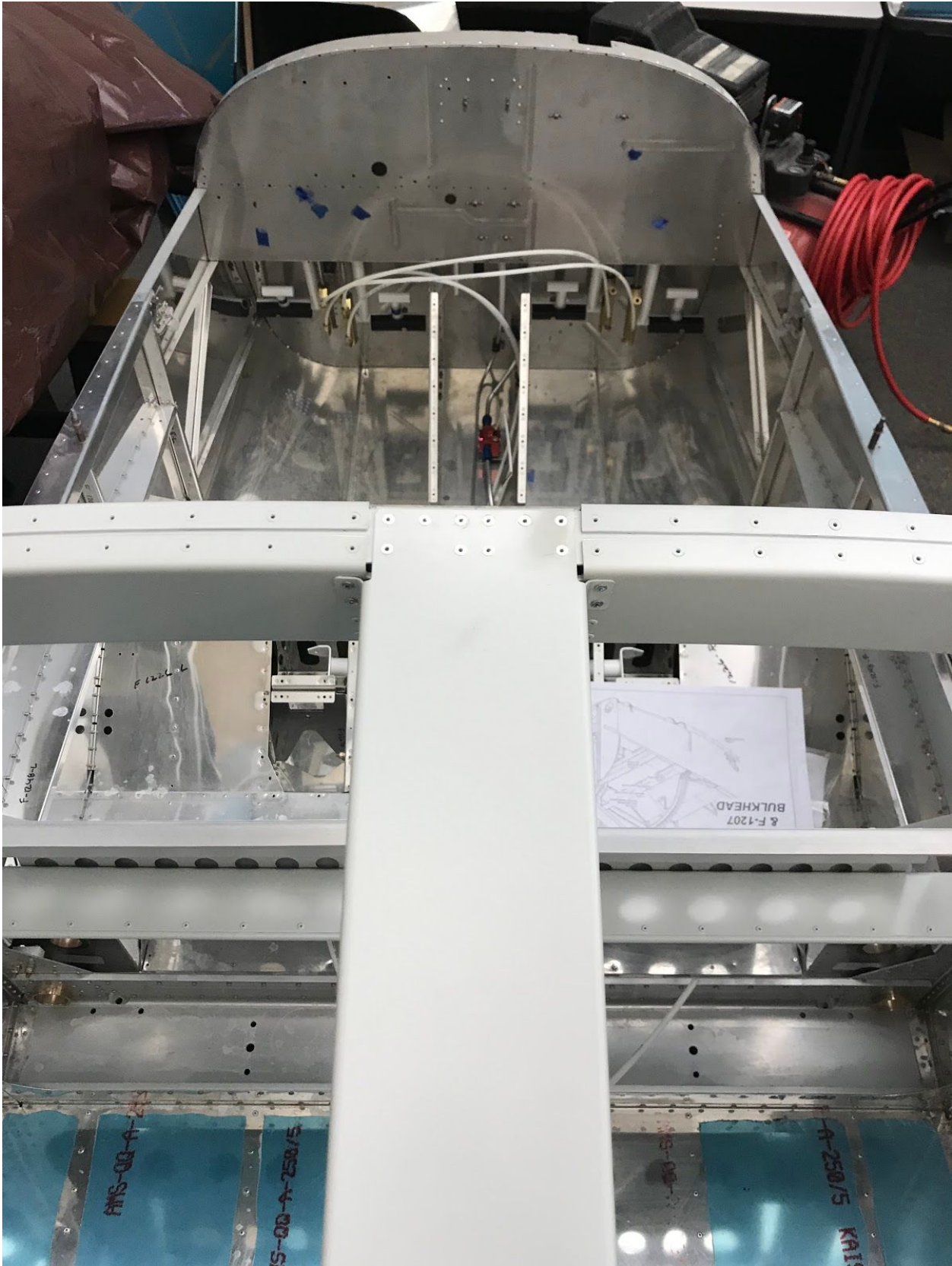
After we had figured out where the last class had left off, we decided the best plan was to complete all the steps that had been marked off as completed in the master plans, but were not actually done. This included riveting a support bar to the inside of the fuselage, riveting the roll bar together, and forming and attaching a pipe that will eventually carry gas to the engine. These are pictured below.

Once the plans were all up to date, we began to work on a part of the plane that will eventually house the various flying instruments. We are currently about halfway done with these pieces. However, there are some more parts and tools that we need in order to complete this section. We were able to have one of the mentors take two parts home over the break that needed to be dimpled with a large die that we didn't have. When we return, we need to order more nutplates of a specific size because we don't have enough. There are quite a few pieces that do go onto this platform, but we have not yet attached them, so it currently looks like a bunch of individual parts. These pieces will all eventually be attached to the instrument housing. The progress on these parts can be seen in the pictures below.

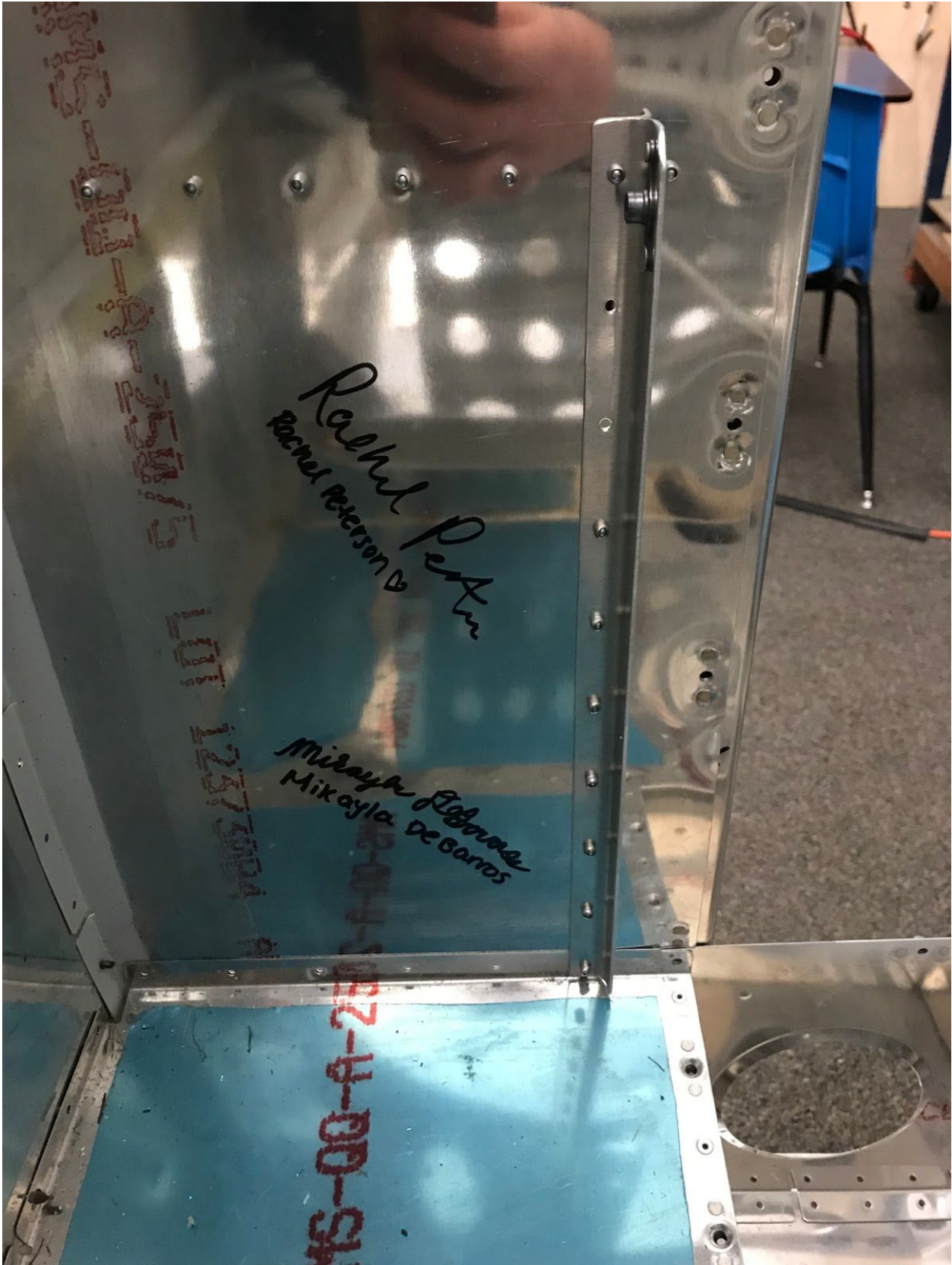
Fuel Line



Support Bar and Roll Bar



Support Angle



Instrument Housing (with various parts that will be attached to it)



### **Fundraising (Nathan)**

The plane is a very expensive project, so in addition to building it, we need to also gather money to continue building it. This year is paid for, but we need somewhere in the neighborhood of \$30,000 for the engine, which will be next year's task. Kendal, Hunter, Michelle and I were in charge of fundraising. We went back and forth with Dave with a letter we had drafted about how to make it the best for our audience: previous donors from GFCA. After writing it, we added pictures of our progress on the plane, the project logo, and signed the letter. We had written the addresses and got the letters sent out with a return envelope enclosed to make it as easy as possible for donors to donate. Very generous donations have slowly been coming in.

The next step is to write more letters for various audiences, in addition to other previous donors, not from GFCA, people that are likely to donate, STEM parents, and some reach donors like some of the major airline companies.

### **Tools (Joey)**

There are a lot of tools needed in order to build an airplane. We have most of the required tools because past years have needed to use them, but there are some more that we need, or that were broken. We had to do a lot of work on the bandsaw, including replacing the blade. If there are any other tools that need to be fixed or ordered, we are in charge of communicating with the mentors about that.