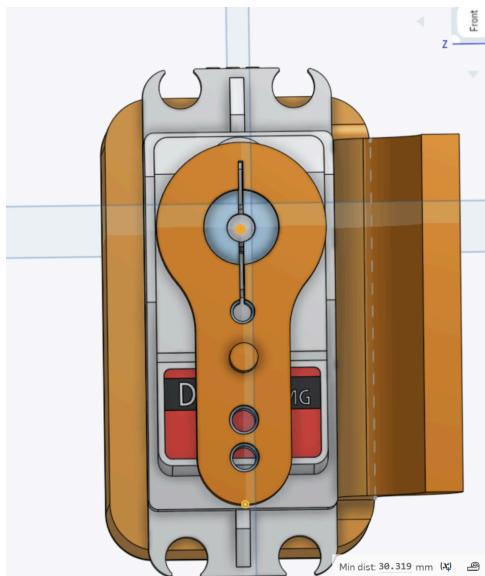


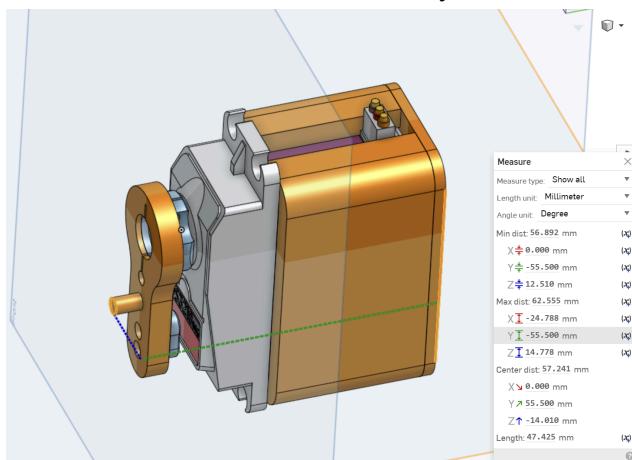
THIS IS A DOC RECORDING HOW THIS PART WENT THRU THE EVOLUTION

Use 3mm carbon plates + 8mm motor mount(?) -in lawn dart) = $3 \times 2 + 8 = 14$ mm bolt actual moving length

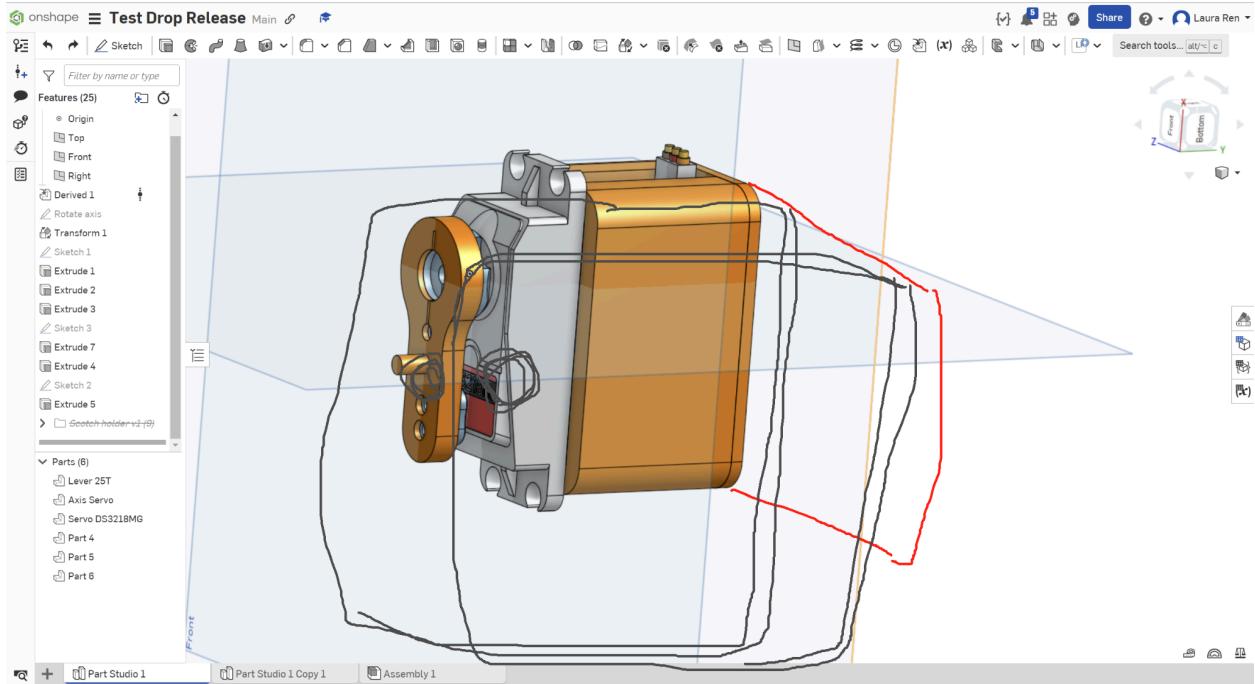
Length of servo horn (arm) extending: 30.3mm



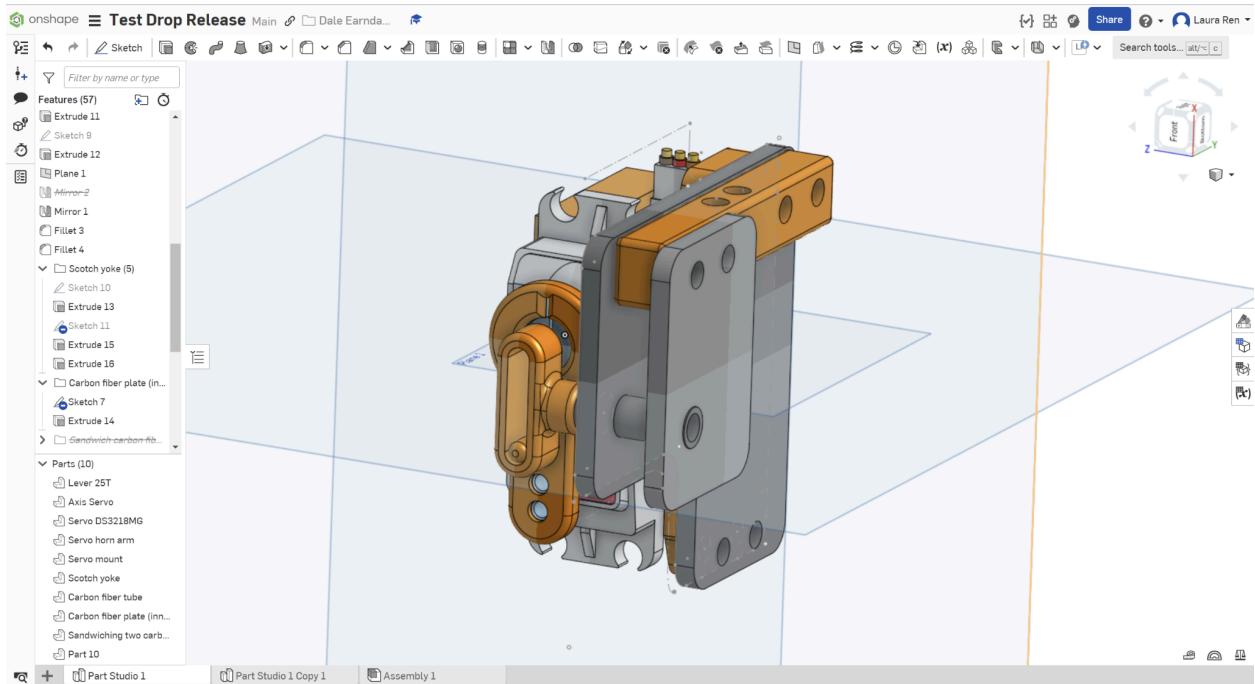
Thickness of structure that actually interferes the drone motor arm: 55mm



Method of adding carbon plate:

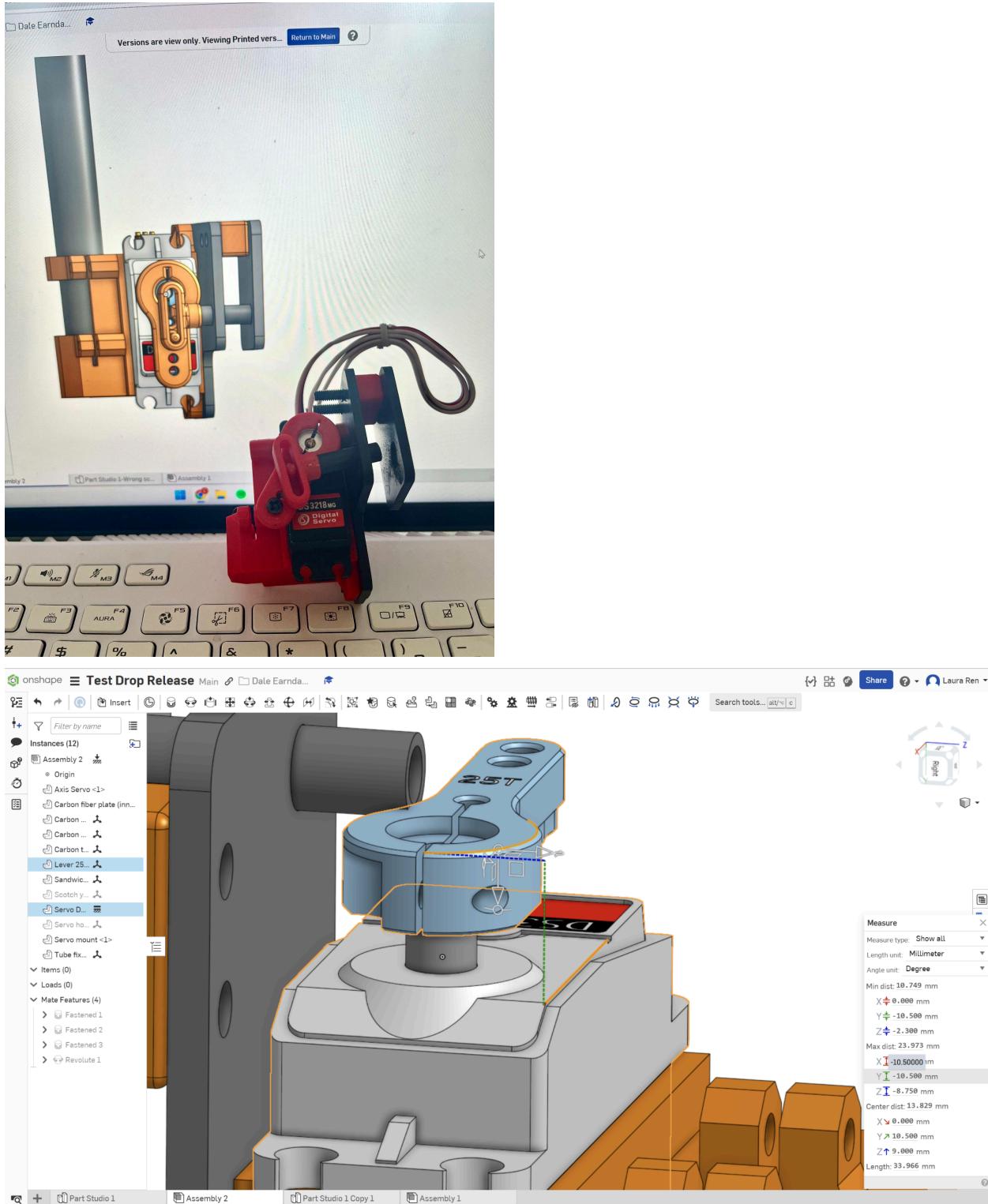


Dimension of narrowest carbonfiber tube for this: 6.0mm

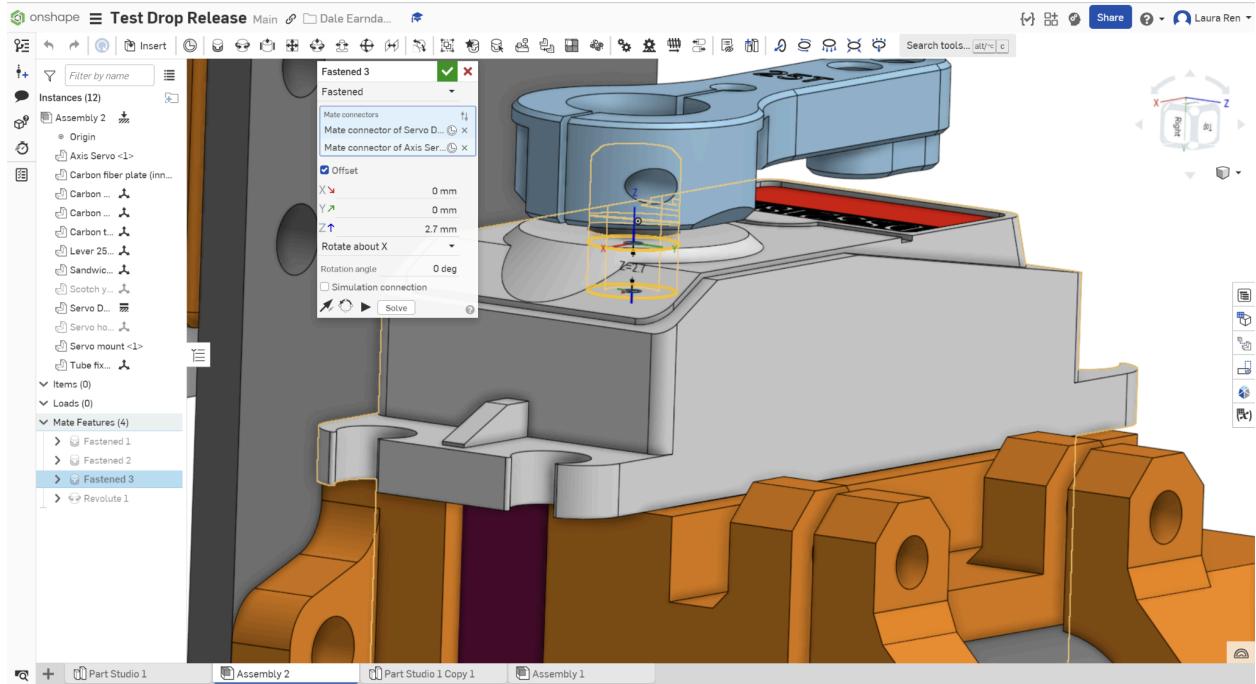


Mount 14mm carbon tube to extend above the tail

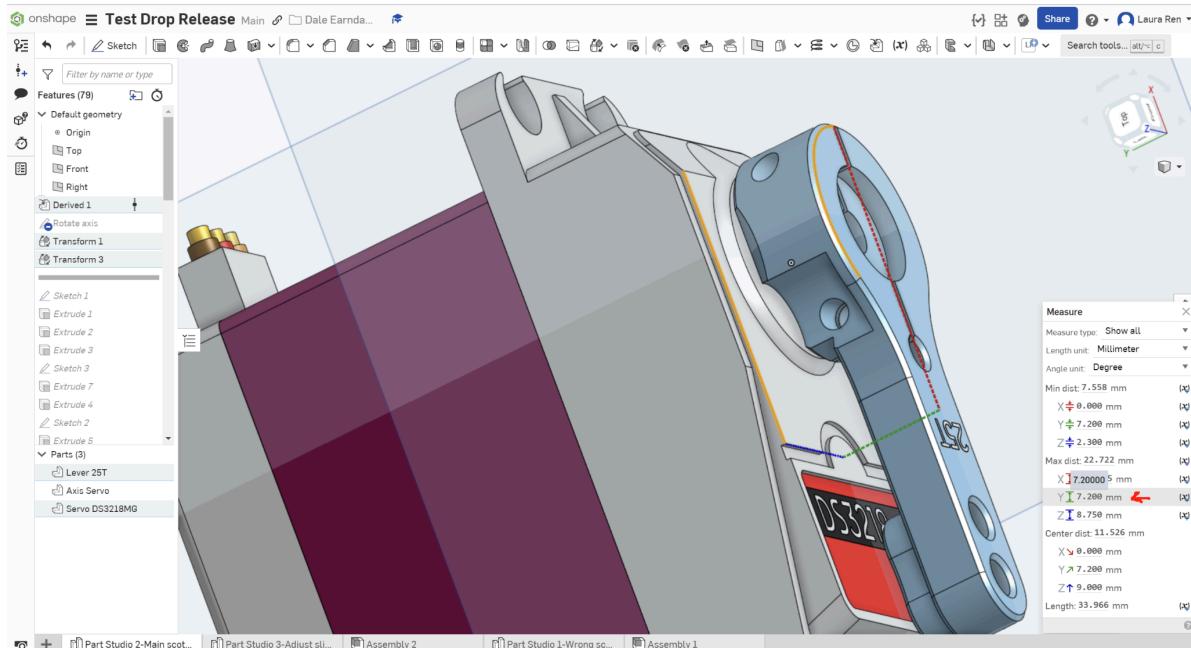
Printed the first version, tested, and realized how the derived servo&servo horn CAD model does not have the same dimension as the real one we have in hand, thus redone the measurement and adjusted the model: [Can directly use transform in derived model to fix everything from the beginning!]



Off set of the “gear representing cylinder: $10.5 - 7.8 = 2.7$

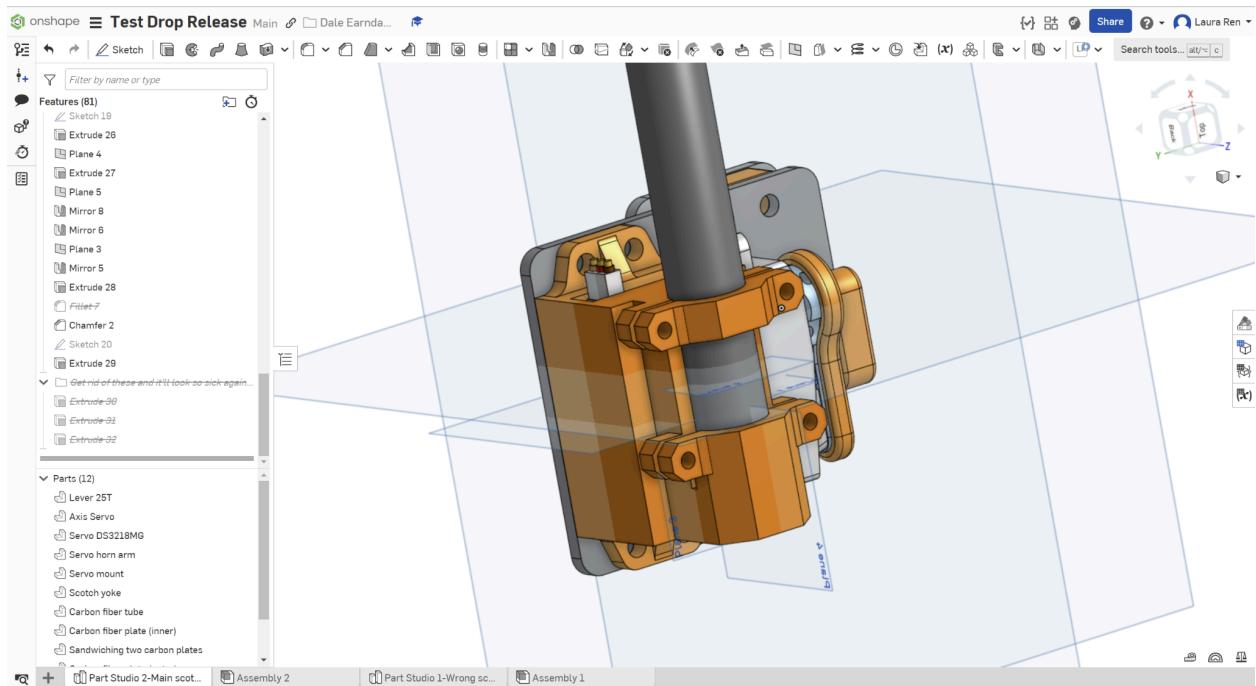


Now changing the dimension of servo&horn distance since the derive&transform

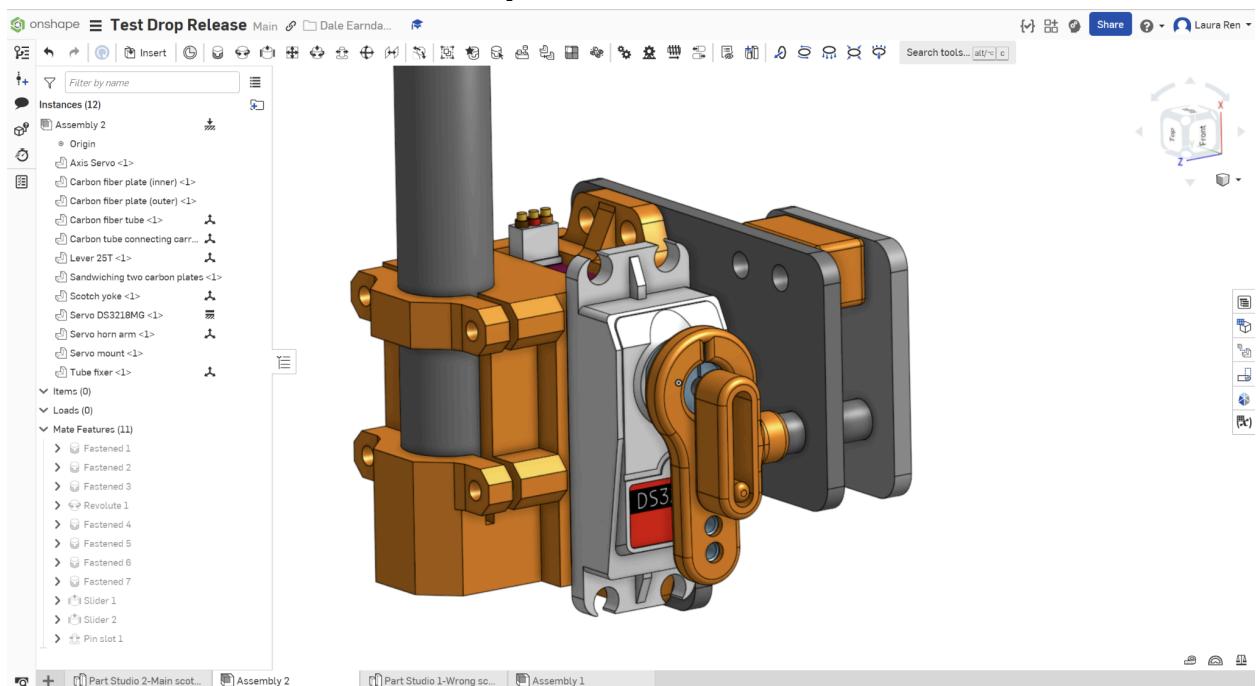


$7.8(\text{servo\&horn we got}) - 7.2(\text{current distance from derived CAD}) = 0.6\text{mm}$ in neg-y-direction

Mounting carbon-tube that connects to Carrier drone:

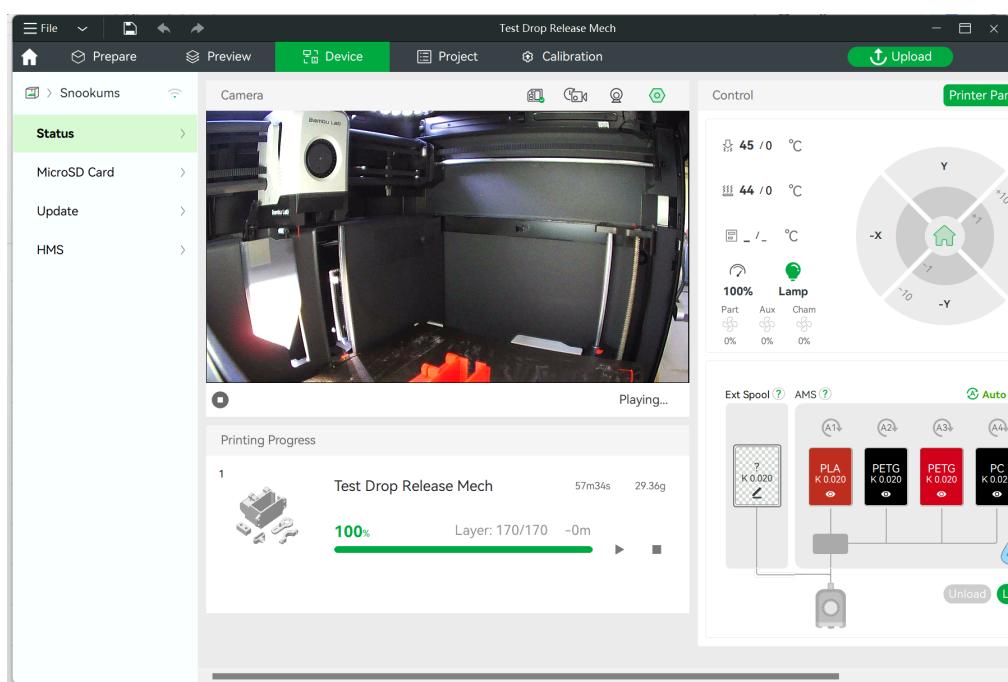
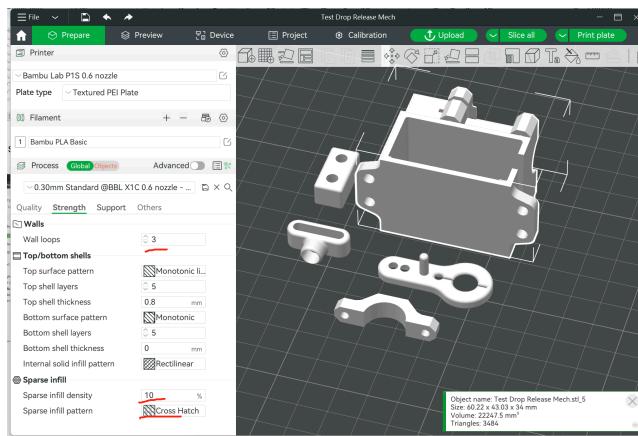
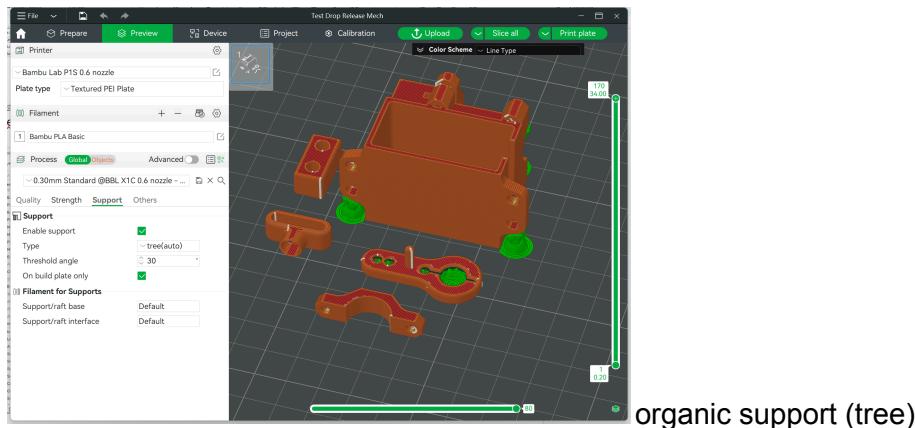


Edited clip grabbing onto the carbon tube – better for printing [SHOULD KEEP 3D PRINTING CONVENIENCE IN MIND WHEN CAD]



PRINT SETTING NOTES:

Prepare-Supports painting → get rid of the screw holes—we don't want supports inside



2024/11/3:

Carbon tube bolt→plastic bolt

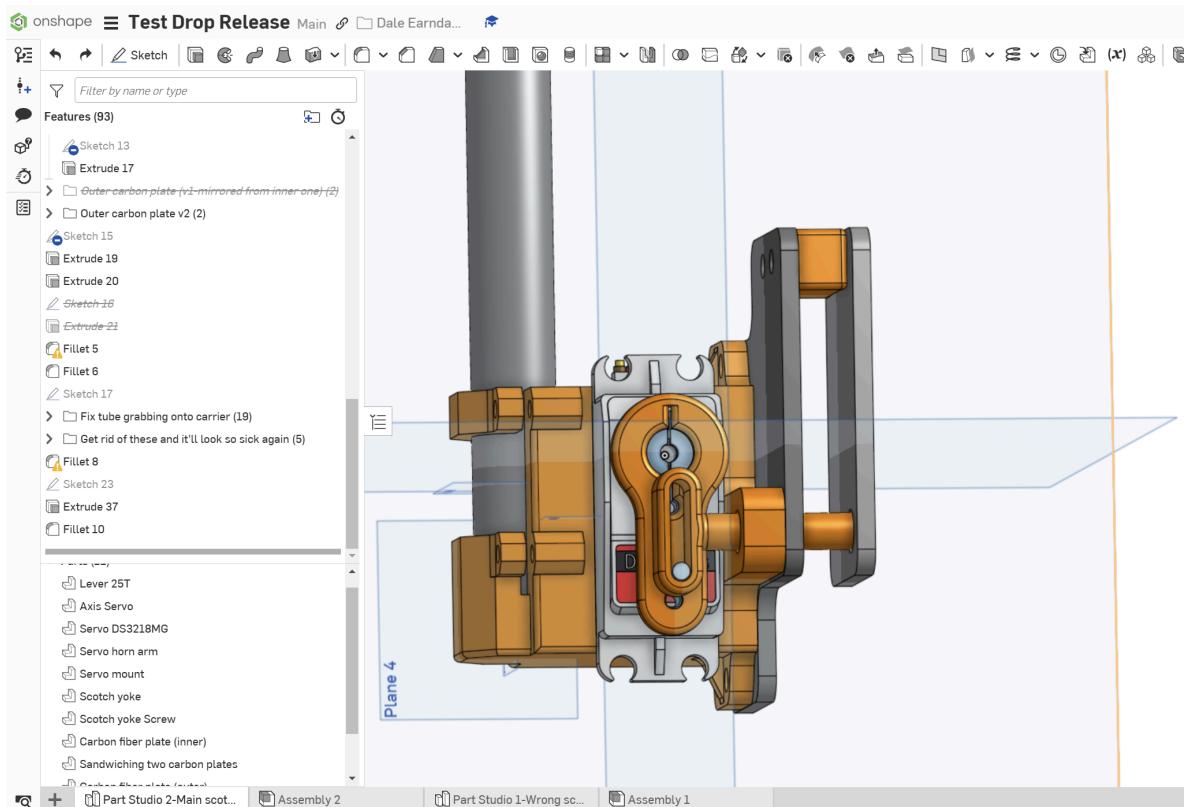
New plastic support to fix the bolt horizontally in place

Enlarged height of space for drone arms

Plastic yoke→M3 Screw yoke

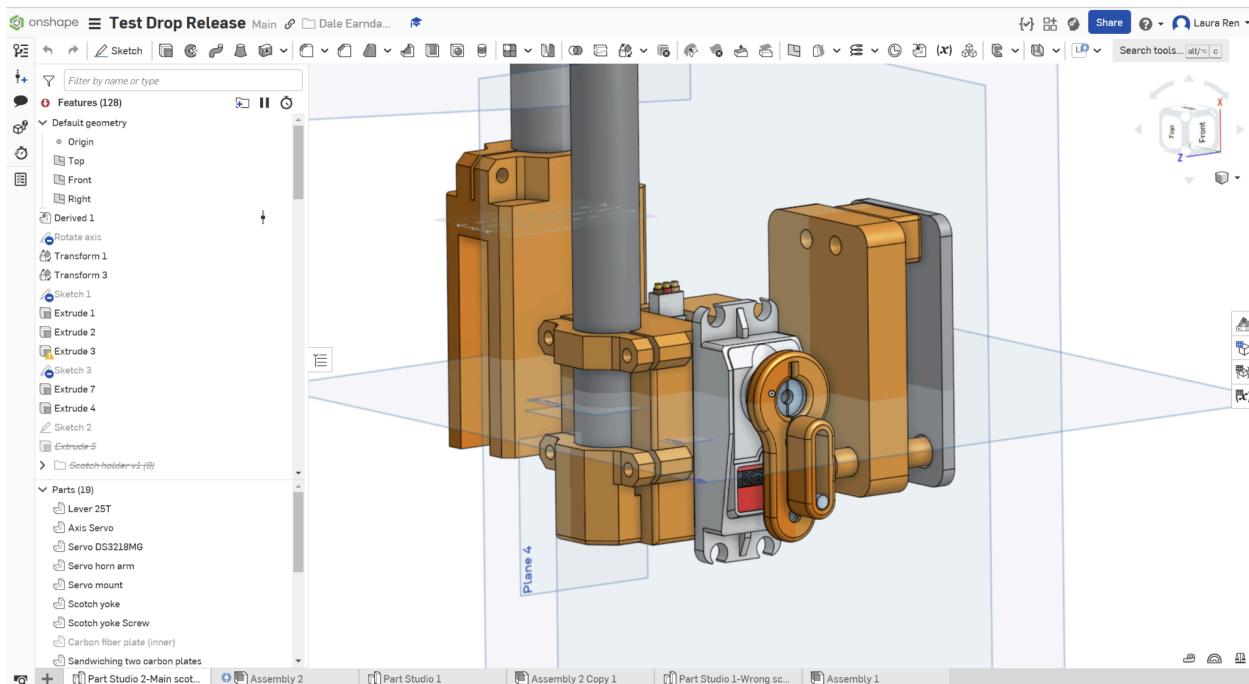
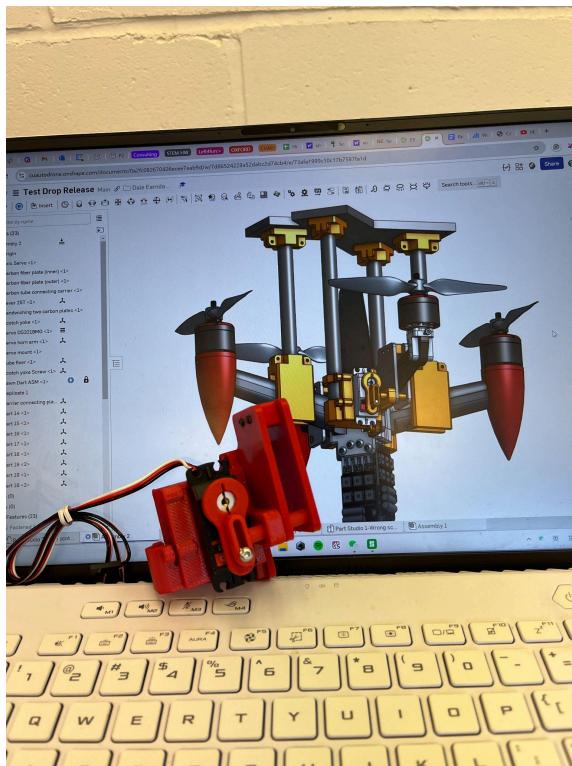
Enlarged hole for bolt on carbon plates

Adjusted hole position by calibrating printed & constructed part

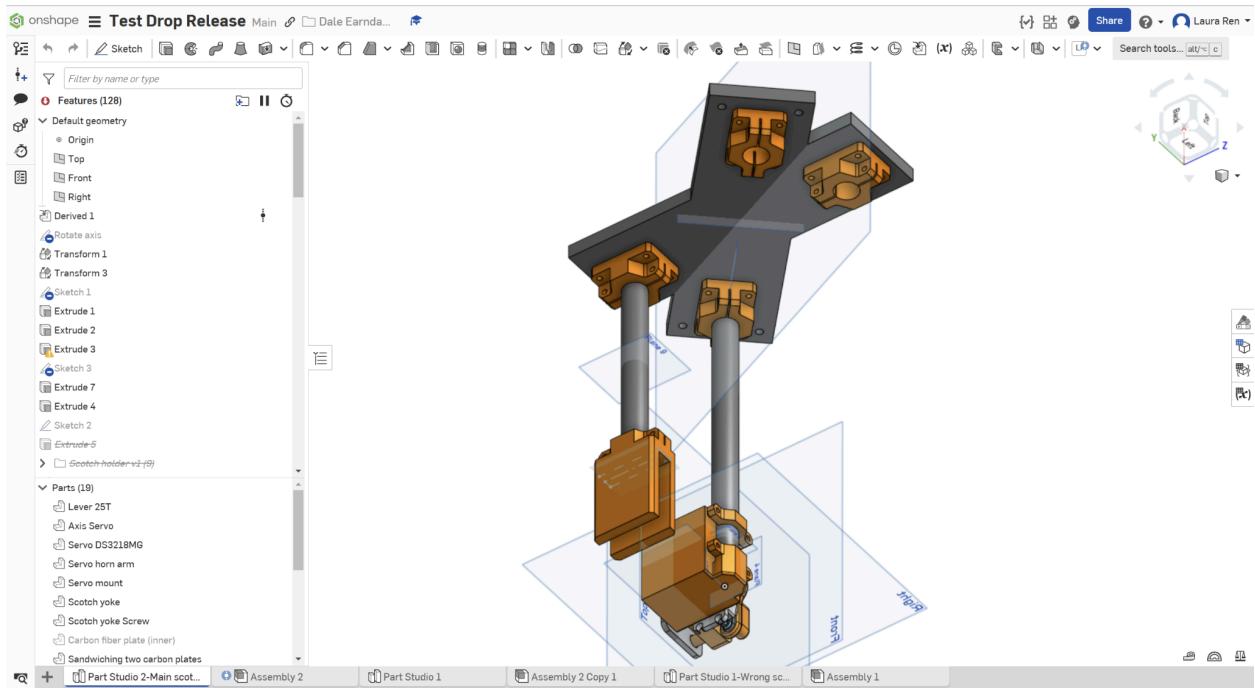


2024/11/24:

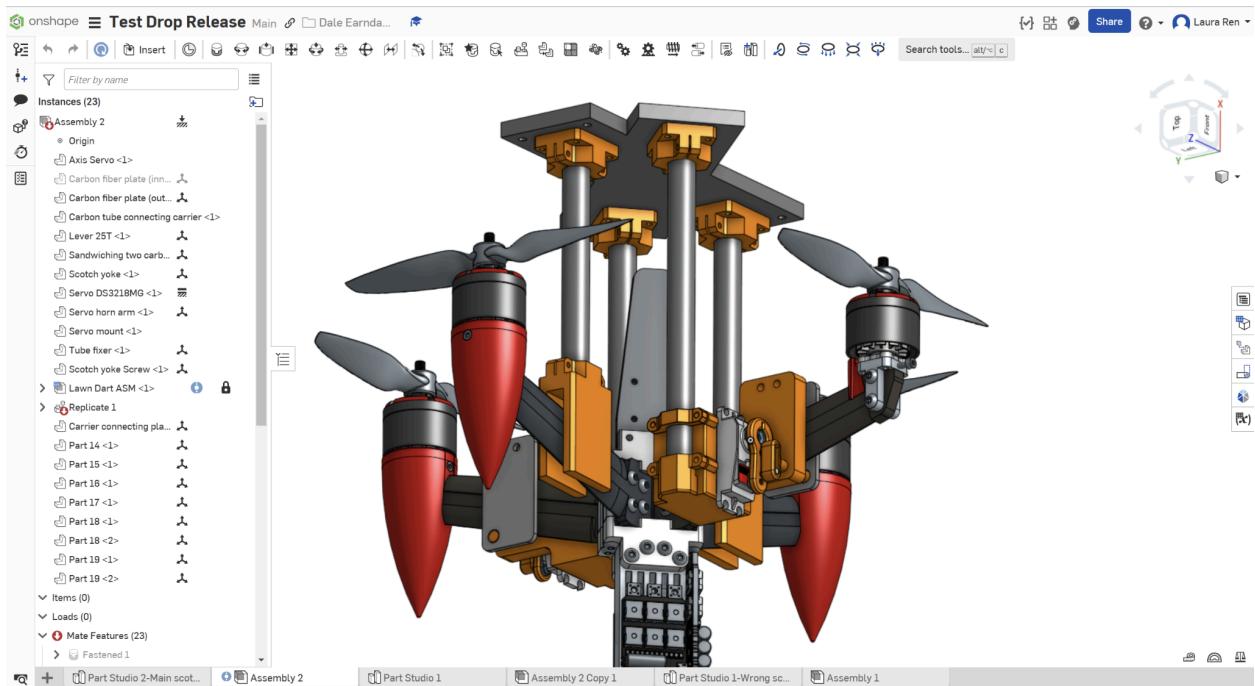
Printed servo mount version 2, and discovered that the inner carbon plate could be replaced by directly mounting it as a single part with the servo mount.



Finished this puppet looking mount for mounting the release mechanism onto Carrier drone: the hole patterns corresponds to the hole position on Carrier



How it works on Lawn dart in Assembly:



12/8

Carbon fiber tube length: servo one—200mm, non-servo one—145mm