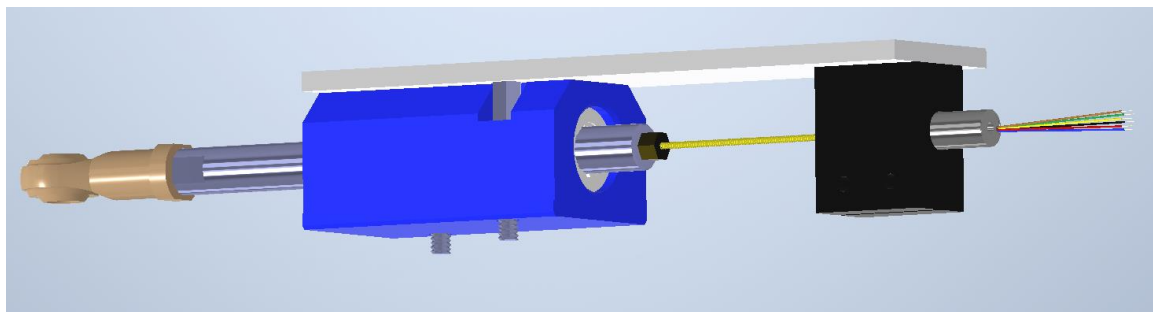
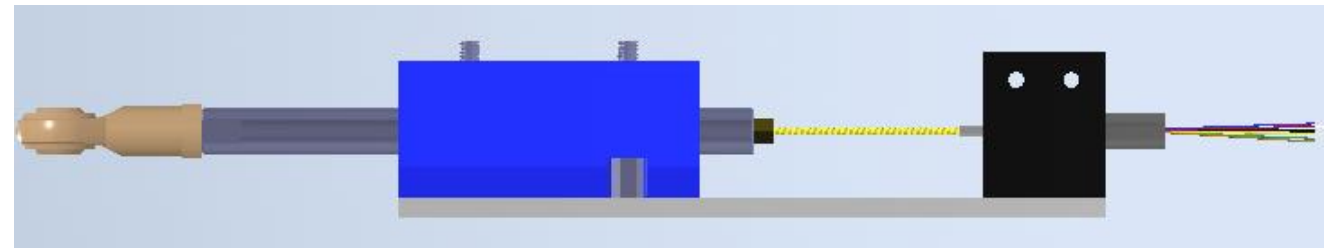
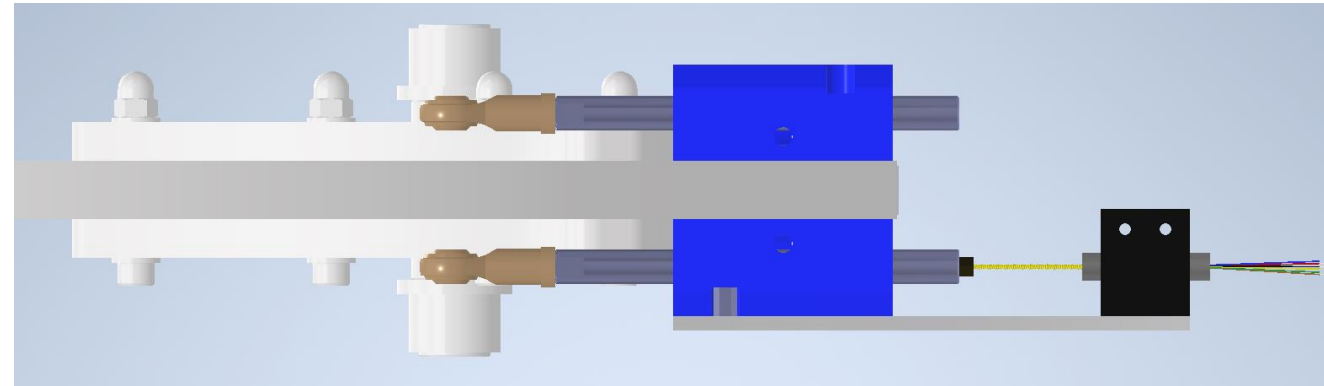
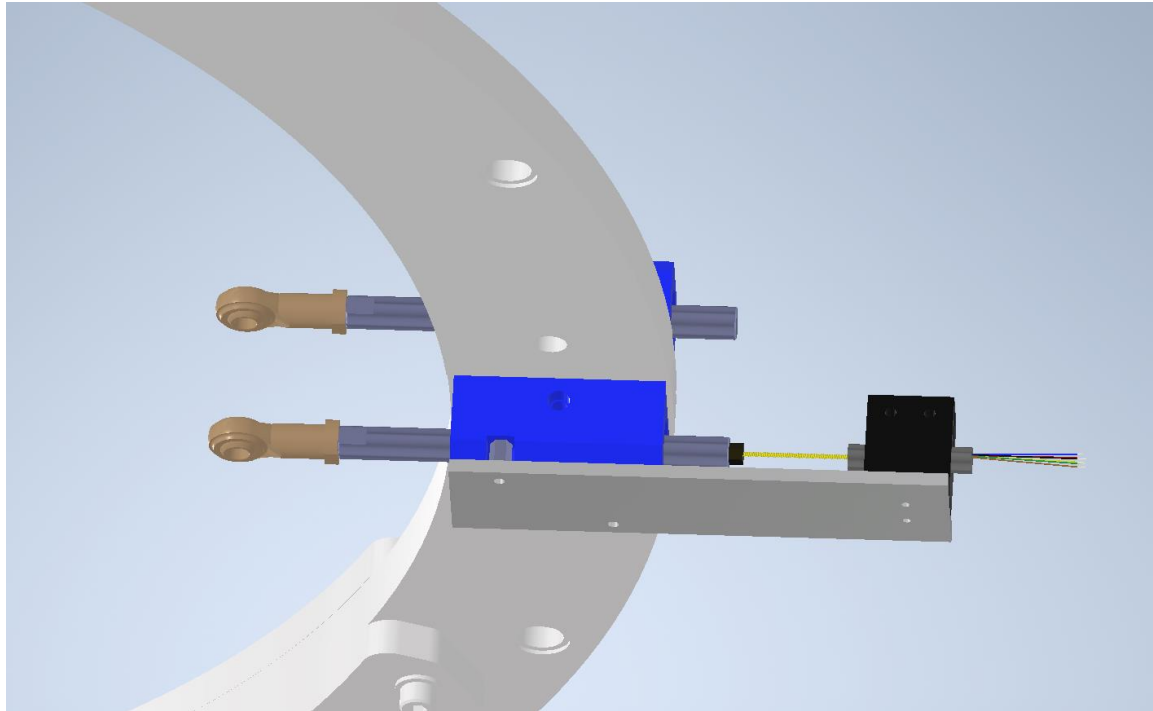
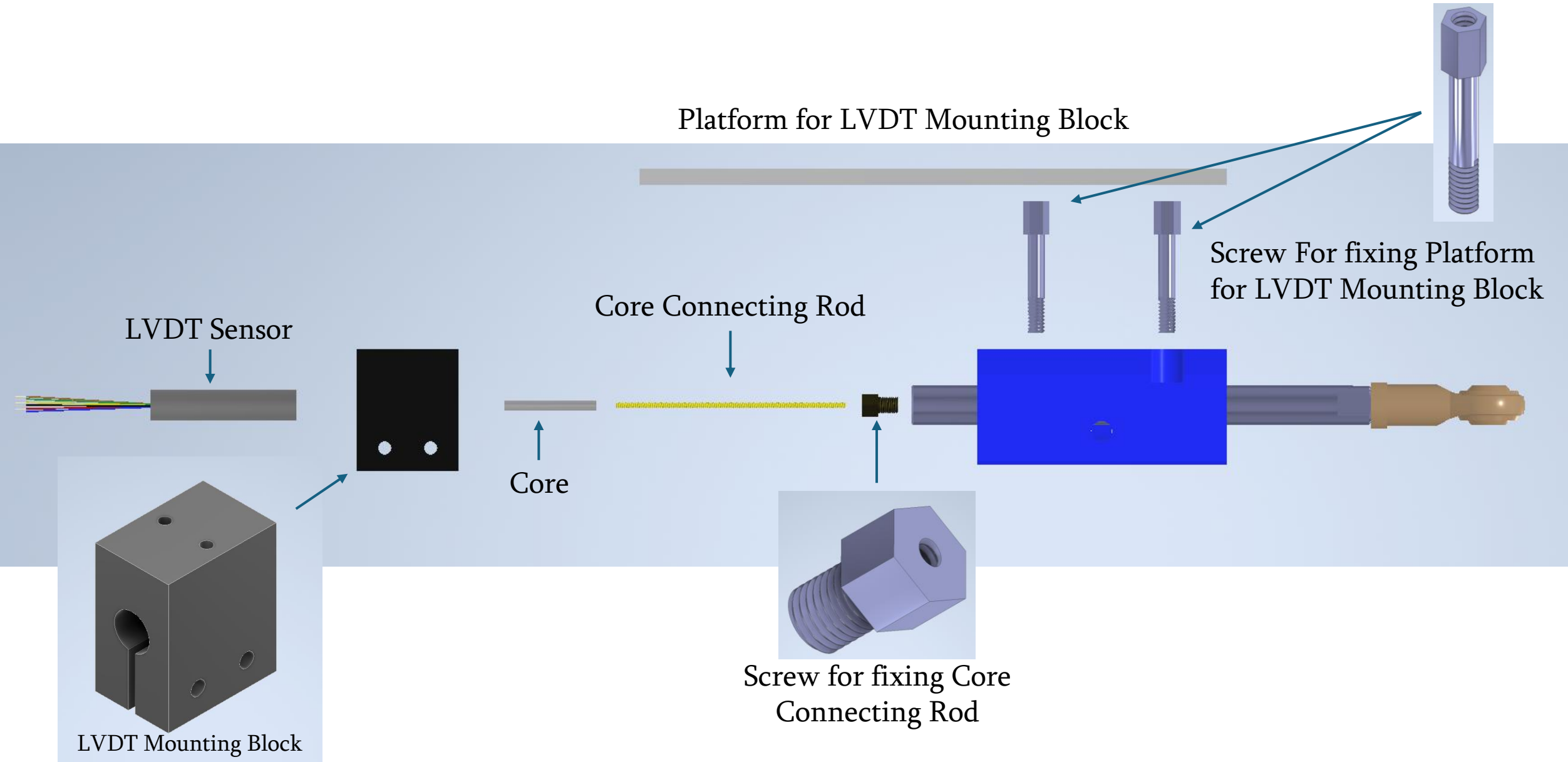


LVDT Sensor Mounting on the Trolley



Beka Buadze
Zaza Cubinidze
Marianna Testa
Matteo Beretta

LVDT Sensor Mounting by Parts



Summary

Aluminum CTE - $23.0 \times 10^{-6} \text{ }^{\circ}\text{C}^{-1}$

The expansion of aluminum in our situation will be $184 \text{ } \mu\text{m}$ when the temperature changes from -40°C to $+40^{\circ}\text{C}$.

Carbon Fiber CTE 5×10^{-6}

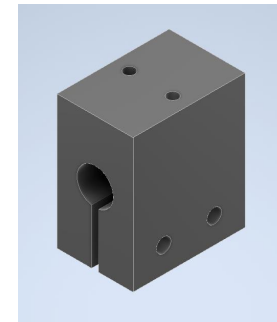
The expansion of Carbon Fiber in our situation will be $40 \text{ } \mu\text{m}$ when the temperature range is -40°C to $+40^{\circ}\text{C}$.

Invar (Fe64%/Ni36%) CTE $1,2 \times 10^{-6}$

The expansion of Invar in our situation will be $9.6 \text{ } \mu\text{m}$ when the temperature range is -40°C to $+40^{\circ}\text{C}$.



We're planning to use carbon fiber Sheets 300X300X2 mm



The LVDT Mounting Block will be made from several glued sheets of carbon fiber.