The sensor boom is an entirely non-metal pressure vessel, designed to house and protect the 3DMG and TCM5. The 3DMG inertial measurement unit and the TCM5 compass were suffering from electromagnetic interference from the thrusters and other sources which were affecting their performance, thus they needed to be move at least 14 inches away from the thrusters. The enclosure is mounted on top of the vehicle by using a standard mounting pattern on bottom of the hollowed cylinder. The electronics are mounted to an acrylic tray to accommodate for the mounting patterns of the 3DMG and TCM5 which will minimize the space needed for the enclosure.

All of the fasteners use 4-40 sizes and they are all made of nylon to eliminate the use of metals. ABS plastic is used for the enclosure due to costs and ability to machine. The electronics are connected to the vehicle via 2 Seacon HUMK 5 pin connectors which are potted and sealed with epoxy to the side of the enclosure.