

# Osi Van Dessel

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**Employment**    **Commonwealth Fusion Systems - SPARC Assembly**    **March 2025 - Present**

Field Mechanical Engineer II    **Boston, MA**

- Field engineer for SPARC assembly station 3. Component install of diagnostic systems and plasma facing components within the Tokamak's vacuum vessel.
- Design tooling and develop processes for welding, grinding, installation, metrology, and quality.
- Organize technician labor and troubleshoot in field issues and part non-conformances.

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**SpaceX - Starlink**    **2017 - 2025**

Senior PCB Engineer    **Seattle, WA**

- Lead Designer for Starlink PCB assemblies including KU and KA phased arrays, KA/E/V-band parabolics, Flight Computer, User Terminal Phased Arrays, and Laser Optics.
- Managed a team of 2-6 people per project.
- Automation script development and simulation of design.

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**Boston University - Space Technology Lab**    **2016 - March 2017**

Research Technician I    **Boston, MA**

- Hardware development of BU's small satellite program. ANDESITE (launched) and CUPID (launched)

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**Education**    **Boston University College of Engineering**    **2013 - 2016**

**Skills**

**Programming:** Python, VBA, C/C++, MATLAB  
**ECAD Software:** Mentor Xpedition, Valor, KiCAD, Altium  
**MCAD Software:** NX, Teamcenter, Autodesk (Inventor, Fusion), Solidworks, PTC Creo, GibbsCAM  
**Simulation:** HyperLynx, LTSpice, ANSYS, OpenFOAM, Thermal Desktop, GMAT  
**M-Processes:** Casting (Sand, Lostwax), 3D Printing (SLA, FDM), Welding (MIG)  
**M-Tools:** CNC/manual mill, lathe, Laser/Water-jet/Plasma cutting, Kilns, Induction furnace  
**E-Processes:** Soldering (0201s, Reflow, Rework), Spot-Welding  
**E-Tools:** Scopes, Function Generators, Power Supplies, Microscopes  
**Testing Tools:** Thermal Chambers, Vacuum Chambers, Air Bearings, Instron

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**Personal Projects**    **Makerspace Area host: Jewelry and Metal Castings**    **2022 - 2025**

- Designed, Casted, Polished, and Set engagement ring. 9 month learning curve.
- Experience with 12-18K Gold, Silver, Bronze, Copper, Iron. Lost wax and Sand.
- Area host for Pumping Station One (makerspace) where I teach casting classes. ~100 students taught.

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**EFNMR (Earth Field Nuclear Magnetic Resonance)**    **2020 - Present**

- Measuring proton precession with a tuned LC tank and high gain active filter.

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**ATLAS (Animal Tracking Linked Autonomous Satellites)**    **2018**

- Honorable mention for NASA Next Generation Animal Tracking Challenge. .

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**Hobbies**    **Hiking, Biking, Baking, Solar/Astro-Photography, FIRST Robotics, Sailing, Music**    **1995 - Present**