



Date: March 3rd, 2023

Subject: Recommendation for Drake Nosker

To whom it my Concern,

Mr. Nosker interviewed with me for a position as an engineering intern in February of 2020 and since that time I have been perpetually impressed with his abilities to deliver excellent solutions to challenging problems on time and within budget. As a sophomore (at the time) he quickly obtained a working knowledge of SolidWorks as well as integrating configuration management requirements into released drawings and documents consistent with space flight programs. This quick transition enhanced his value as a team member, ahead of his peers.

His first project was to help me validate a \$1M Hyperspectral imager detector package with no previously space flight heritage and take it to a TRL-6 level. Engineering tasks included designing electrical flex fixturing for a ceramic package with kovar pins to ensure optimal alignment. The GSE was critical for cryogenic operations and ensuring positive margin of safety for both random vibration and thermally induced structural loads. This hardware eventually went to Ball Aerospace for force limited vibration testing, which again, Mr. Nosker supported with the design of flight hardware and critical GSE.

Mr. Nosker was instrumental in helping me design and fabricate a thermal engineering model of our Hyperspectral imager. This hardware became a test bed to validate performance of distributed cooling systems for both the Offner Spectrometer and its detector. A unique aspect of this program is a single stage cryocooler required to provide roughly 6W of cooling at -10C and -123C respectively, through a hermetic interface. He also designed and tested heat rejection systems for use in both ambient ground test and under vacuum. Many of his designs were initially verified by his own analysis and then validated empirically, which is generally considered a preferred approach to hardware.

Mr. Nosker is one of the finest engineering interns I have ever had the pleasure of supervising. Every investment our team has made into him has been re-paid a hundred times over. He is self-motivated, well organized and able to communicate effectively. He asks the right questions to get to the root of a problem and attacks it with efficiency. He is a team player, works well with groups, and is a good listener. I am honored to be part of his engineering career and fully expect to see him do great things. Lastly, I would hire him in a heart-beat, but I also know that good engineers need to see how the rest of the world operates.

Theodore Bertele



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