

PRESS RELEASE  
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## NÜVÜ'S EMCCD FOR NANOSATELLITES

**MONTREAL, Canada, June 2<sup>nd</sup>, 2022** – Nüvü Camēras is on its way to occupying a prime position in space exploration with the development of its proprietary low light imaging solution for nanosatellites.

Since its founding, Nüvü Camēras has taken the lead with its unmatched photon counting imaging capability and reliability in supporting detectors for demanding low light applications. Thanks to developments carried out for the Canadian Space Agency (CSA), Nüvü Camēras' industry-leading Electron Multiplying Charge Coupled Device (EMCCD) technology is being integrated into NASA's Roman Space Telescope.

In early 2021, the CSA awarded Nüvü Camēras a contract as part of its Space Technology Development Program to develop an EMCCD imaging solution capable of fulfilling a wide range of nanosatellite (nanosat) missions' requirements. The proposed work would scale the capability of Nüvü's EMCCD high-performance technology to target low-cost missions, giving the company further leverage to be considered in all relevant future space missions.

In April 2022, the CSA authorized manufacturing of the proposed solution, optimized for a 6U CubeSat in low-Earth orbit. A CubeSat is a type of Nanosat with a standardized size where 1U equals 10cm x 10cm x 10cm. During the design phase, Nüvü was able to count on the support and advice of Dr. René Doyon and his team, experienced with exoplanet exploration and space missions, and of Dr. Leon K. Harding and his team, experts in CubeSat spacecraft and mission design, implementation and operation. All the expertise combined with their knowledge in using Nüvü's EMCCD technology contributed to the success of the design review milestone.

Along with the ability for spaceborne direct imaging of planets outside of our solar system, the EMCCD technology offers tangible benefits for many crucial applications in space. For adaptive optics, it improves the correction of aberrations during the observation of far objects. In the growing field of space domain awareness (SDA), using an EMCCD enables the detection of smaller and faster objects regardless of their composition. Dr. Simon Thibault has presented his future work in space using EMCCD for SDA during the SPIE Defense + Commercial Sensing 2022 conference.

Manufacturing the EMCCD nüSpace imaging solution for nanosat democratizes the EMCCD technology, again bringing the Canadian Eye to the forefront of upcoming space missions.

### About Nüvü Camēras

Founded and based in Montreal in 2010, Nüvü Camēras is a world leader in ultra-sensitive imaging solutions. The company designs and manufactures high-end CCD & EMCCD cameras and controllers for ground- and space-based applications.

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