

29th IAA SYMPOSIUM ON SMALL SATELLITE MISSIONS (B4)
Small Satellite Missions Global Technical Session (9-GTS.5)Author: Mr. Wilhelm Kristiansen
NTNU, NorwayHOW A SELFIE FROM SPACE CAN SIMULTANEOUSLY LEAD TO CUBE SATELLITE
DEVELOPMENT AND ENGAGE THE GENERAL PUBLIC IN SPACE ACTIVITIES**Abstract**

Space is a growing market both for the commercial and science sector. In smaller space countries, there is a growing need for resources of personnel. It is therefore important to increase awareness and interest in space technology in all ranges of the population, including children, students, everyday workers, in academic institutions, etc. The problem arises when the general public doesn't know much about space. Therefore, other areas are easier to grasp and more accessible market segments to engage and work in, especially for children, students, and everyday people. More excitement about space is generated by including people in a space mission.

A selfie is a personal photo often associated with an event or a person. By including people in a selfie from space, more people can relate to space activities. A selfie from space requires a screen to display someone's face and a camera looking back at this screen. The earth should also be visible in the background to emphasize how exciting space is. The selfie is sent back to the person afterward. By using an all COTS (commercial of the shelf) system, based on a Raspberry Pi, an advanced, but easy to use, platform can be built to perform the task.

This paper will focus first on how to engage the general public with a mission on which anyone can participate. Further, it will focus on the technological platform used for the selfie system. Both in terms of different aspects that have to be considered for taking a selfie in space, and then the testing and verification of an all COTS system.