



## CAN MACHINE LEARNING BE USED IN LOW EARTH ORBIT TO CHARACTERIZE METHANE LEAKS?



**SCHOOL:** BAYLOR SCHOOL

**LOCATION:** CHATTANOOGA, TN

**FLIGHT PROVIDER:** WORLD VIEW

**GRADES:** HIGH SCHOOL

### STUDENT EXPERIMENT DESCRIPTION

Our experiment uses a M4 microcontroller with a connected thermal camera to take images of the Earth during the ascent and float times of the balloon flight. After the balloon reaches altitude the M4 will trigger the thermal camera to take an image which is saved as a file on a micro-SD card breakout board. The images will be analyzed when the balloon returns to Earth. This research will take us one step closer to finding an efficient solution to reducing methane emission in the atmosphere.