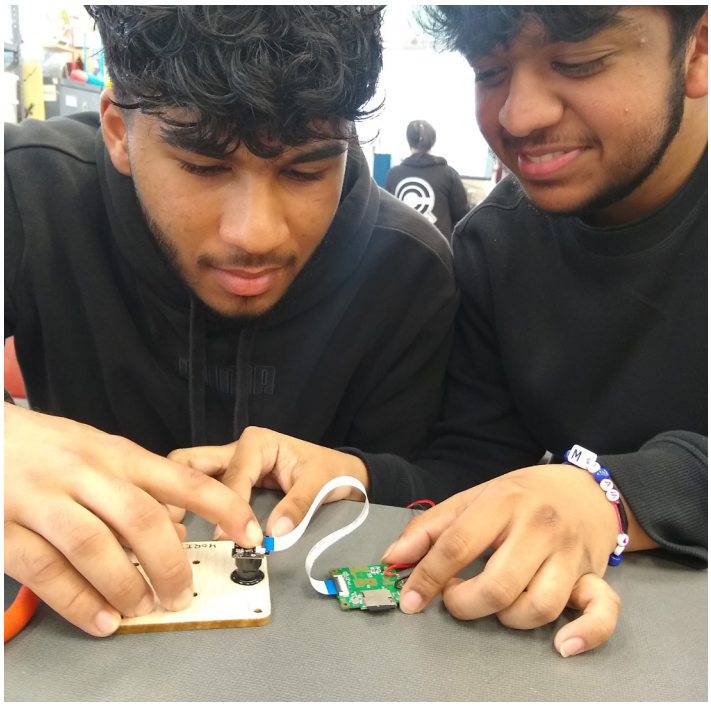

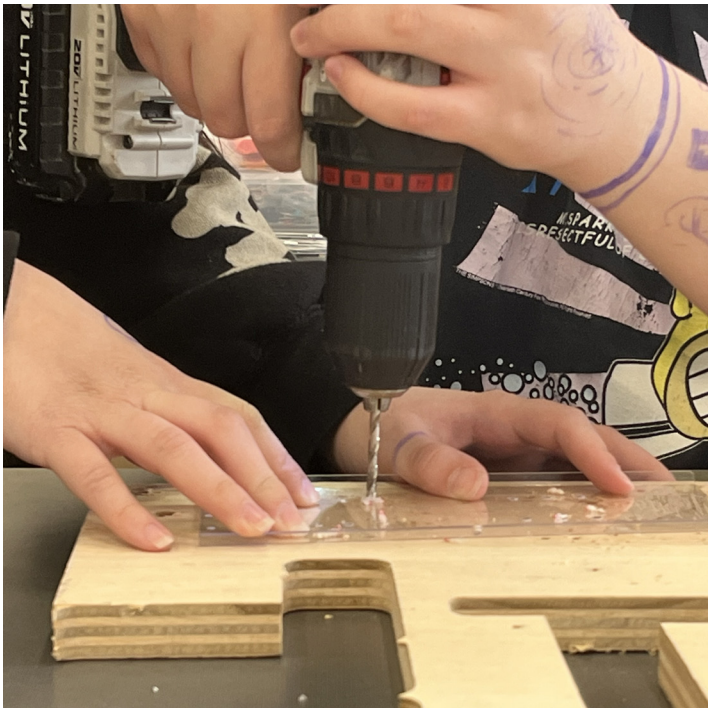

“GRAVITATIONAL ACCELERATION AT INCREASING ALTITUDES” (G.A.I.A.)

NASA TECHRISE STUDENT CHALLENGE

SCHOOL: SEWANHAKA HIGH SCHOOL

LOCATION: FLORAL PARK, NY

FLIGHT PROVIDER: AEROSTAR

GRADES: HIGH SCHOOL

STUDENT EXPERIMENT DESCRIPTION

The primary mission of our experiment is to observe the variation in the acceleration of gravity at increasing altitudes from the surface of the Earth. Our results will then be compared to predictions made using Newton’s Law of Universal Gravitation. We hypothesize that as altitude increases to 70,000 ft (~21,000 m), the acceleration of gravity, g , will decrease by ~ 0.0642 m/s^2 , which should be measurable with an ensemble of 8 accelerometers and a microcontroller.