TEAM PAYLOAD DESCRIPTION
DUE ON FRIDAY, APRIL 8, 2023
Please email completed form to: jbbishop@charter.net
WHEN SAVING THIS FILE, PLEASE SAVE AS SCHOOL AND TEAM NAME

School Name:	Post 1010
Team Name:	Rocketville Blue Crabs
Advisor #1 Name:	Robert Ekman
Advisor #2 Name:	Jonathan Rains

Type your Payload Description below:

Our payload for rockets for schools is a load cell placed below the nosecone that will record drag force. The load cell will be mounted between two bulkheads, with the upper bulkhead mounted to the base of the nosecone shoulder. The lower bulkhead will be attached to a centering ring that will allow it to be removed. Below the centering ring will be a small waterproof electronics bay that will hold an Arduino Nano, a load cell amplifier, and a SD card data logger.

We chose to use a 50kg rated load cell based on calculating the peak drag force with the drag equation Fd = 0.5*pv^2ca. Using this model, our drag force will peak at around 15 kilograms. The point of the experiment is to measure the drag force on the rocket throughout its flight and to determine how accurate the drag equation model is. After the flight, the SD card module will be recovered with the saved data.