

Payload Calculator

Maximum Lift-off Weigh: 113 grams

While the Flight Engineers are building the rocket, the Mission Specialists perform the following tasks to complete this form.

- 1** Write the names of the flight engineers, mission specialists, and the name of the rocket on this form.

Flight Engineer _____ Flight Engineer _____

Mission Specialist _____ Mission Specialist _____

Rocket Name _____

- 2** Pack the egg and the payload cushion in the payload tube. Make sure the packing material does not push the nose cone and coupler out of the payload tube.

- 3** Weigh the payload cushion alone – do not include the egg, payload tube, nose cone, or bulkhead or the rocket!

- 4** Write the weight of the payload cushion on this form. Add the weight of the rocket, engine, and egg to the weight of the cushion and write it in the Actual lift-off weight box.

Weight of Payload cushion grams

+ Weight of Rocket grams

+ Weight of Engine grams

+ Weight of payload (the egg) grams

= Actual lift-off weight grams

Make sure your Actual lift-off weight is less than 113 grams!!

- 5** Pack the payload cushion in the payload tube so you can save it for launch day. Do not include the egg!

- 6** Describe the materials you used to cushion the egg. Write down your prediction for how high the rocket will fly.

Payload cushion materials: _____

Predicted Altitude: _____

- 7** Get some Scotch tape and follow the **build payload section-Mission Specialists.mp4** video to complete the Payload Section of your rocket.