

Quest Seeker Launch Checklist

Updated January 18, 2012

Supplies Needed

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| <input type="checkbox"/> Completed Quest Seeker rocket | <input type="checkbox"/> Recovery Material: "Dog Barf" |
| <input type="checkbox"/> Altimeter | <input type="checkbox"/> Launch Pad |
| <input type="checkbox"/> Rocket Motors | <input type="checkbox"/> Launch Controller + Safety Key |
| <input type="checkbox"/> Motor Igniters + Backups | <input type="checkbox"/> Flight Card |

Pre-Launch Checklist

- Insert Recovery Material
 1. Remove payload section and both parachutes from rocket body.
 2. Insert very-loosely packed recovery material 2-3 body diameters long, and pack it gently down into the base of the rocket body. If the material is too tightly packed the 'chutes will not be ejected and your rocket will become a lawn dart.
Recovery wadding prevents hot ejection charge from damaging parachute.
- Pack Parachutes & Shock Cord
 1. Review Step 6 of the printed directions that came with your rocket for how to fold parachutes.
 2. First pack rocket base parachute and shock cord.
 3. Next pack payload section parachute.
 4. Slide payload section into place on end of rocket body.
- Load Rocket Motor
 1. Insert motor into rocket motor mount.
 2. Insert and twist motor lock ring to secure motor into rocket.
- Install Igniter

Always wear safety glasses while handling rocket motors!

 1. Prepare igniters: remove single igniter from package, check to make sure wires do not short (touch) anywhere except for within the combustible tip.
 2. Insert the combustible tip into the nozzle end of the rocket motor until it is up against the propellant grain inside. Bend the igniter leads back slightly and secure with the plug or tube provided. After the igniter is secured, you may bend the leads further out away from the rocket.
 3. Make sure igniter leads do not short!

Rocket is now ready for launch

Launch Procedure

- Start Altimeter, record voltage, turn off altimeter.
- Fill out Flight Card and take it and rocket to RSO for initials.
- Get Range Safety Officer (RSO) Approval.
- Safety Key MUST be out of launch controller (LCO will do this step)**
- Open payload compartment, turn altimeter on, replace & close payload bay.
 - Double check battery voltage.
 - Ensure pressure sensor is facing down toward motor, near air bleed holes.
 - Make sure payload bay is closed before 'ready' beep sounds.
 - Fully secure the plastic rivet.
- Take rocket and Flight Card to Launch Control Officer to be assigned a launch stand.
- Slide rocket on to launch rod.
- Attach alligator clips from launch controller to igniter ends.
- Make sure alligator clips/igniters do not short! Use masking tape if needed.
- Retire immediately to safe distance & prepare for launch.
- Insert Safety Key, countdown & launch! (LCO will do this step)
- Remove Safety Key immediately after launch (LCO will do this step).**

Misfire Procedure

- Call "Misfire!" (LCO will do this step).
- Remove Safety Key (LCO will do this step).
- Wait 1 minute before approaching.
- Remove rocket from launch stand, repair/replace motor assembly.
- Begin launch procedure again.

Post-Recovery Procedure

- Recover both rocket body and payload section.
- Altimeter will be beeping out max altitude. Record it and then remove altimeter from payload bay.
- Attach altimeter to computer, download flight data.
- Remove expended motor.
- Check rocket body, fins, nosecone, parachutes for damage.
- Prepare for next flight.