

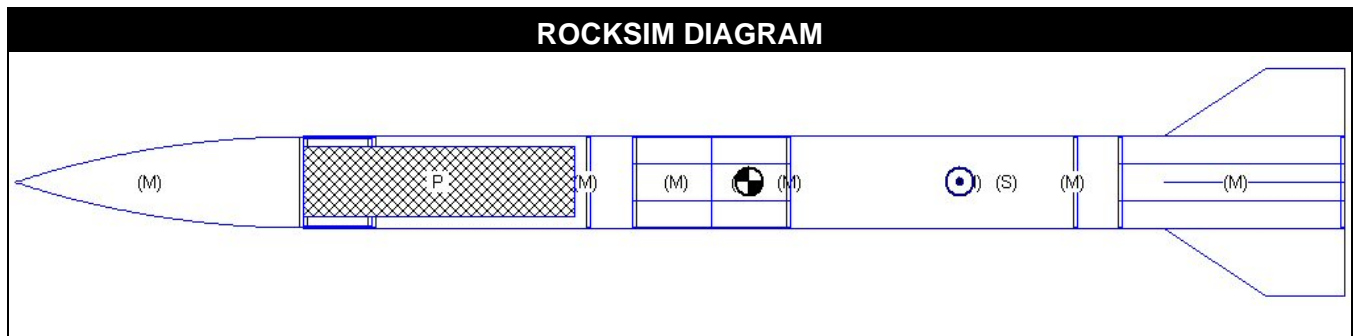


Spaceport Rocketry Association

Premier Rocketry Organization Serving the Space Coast for over 30 Years
 www.spaceportrocketry.org

MIM-104 PATRIOT ROCKET DATA SHEET

| ROCKET DESCRIPTION | | | |
|--|--|---|--|
| Type of Rocket <input type="checkbox"/> Large Model <input checked="" type="checkbox"/> High Power <input type="checkbox"/> Sport <input type="checkbox"/> Competition <input type="checkbox"/> Altitude <input type="checkbox"/> Duration <input type="checkbox"/> _____ <input checked="" type="checkbox"/> Scale <input checked="" type="checkbox"/> Payload* <small>*Adjustable CG System</small> <input type="checkbox"/> Multi-Stage <input type="checkbox"/> Cluster | Design <input type="checkbox"/> Kit _____ <input checked="" type="checkbox"/> Scratch Built Dimensions Length <u>58.8 in</u> Diameter <u>4.0 in</u> Nose Shape <u>Ogive (LOC)</u> Empty Weight <u>87 oz</u> Empty CG <u>33.4 in max</u> <small>*Adjustable CG System Required</small> CP Location <u>41.7 in</u> No. of Stages <u>1</u> | Fins No. of Fins <u>4</u> Span <u>3.0 in</u> Root Chord <u>8.0 in</u> Tip Chord <u>3.5 in</u> Sweep Length <u>4.5 in</u> Fin Airfoil Shape <input type="checkbox"/> Square Edges <input checked="" type="checkbox"/> Rounded Edges <input checked="" type="checkbox"/> Symmetrical <input type="checkbox"/> Chambered | Motors No. of Motors <u>1</u> Minimum Thrust <u>145N</u> Recommended Motors <u>See page 2</u> _____ _____ _____ |



| SUSTAINER RECOVERY SYSTEM (Drogue Lower and Main Upper) | | | |
|---|---|--|---|
| Drogue Type <input type="checkbox"/> Tumble <input type="checkbox"/> Streamer <input checked="" type="checkbox"/> Parachute <input type="checkbox"/> Glider <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Top Flight | Drogue Description Shape <u>Round</u> Size <u>12 in</u> Material <u>Nylon</u> Color <u>Orange</u> No. of Shrouds <u>8</u> Shroud Length <u>11 in</u> | Main Type <input type="checkbox"/> Tumble <input type="checkbox"/> Streamer <input checked="" type="checkbox"/> Parachute <input type="checkbox"/> Glider <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Rocketman R7C | Main Description Shape <u>Square</u> Size <u>72 in</u> Material <u>Nylon</u> Color <u>Green/Black</u> No. of Shrouds <u>4</u> Shroud Length <u>68 in</u> |

| ELECTRONICS | | | |
|--|---|---|--|
| <input checked="" type="checkbox"/> Altimeter <u>Transolve P6</u> | <input type="checkbox"/> Timer _____ <input checked="" type="checkbox"/> Beeper | <input type="checkbox"/> Accelerometer _____ | <input type="checkbox"/> Camera/Video _____ <input type="checkbox"/> _____ |

ROCKSIM FLIGHT SIMULATION SUMMARY

| Sim # | Results | Engines loaded | Max, Altitude | Max. Velocity | Time to apogee | Velocity at deployment | Altitude at deployment | Optimal delay |
|-------|---------|----------------|---------------|---------------|----------------|------------------------|------------------------|---------------|
| | | | Feet | Feet / Sec | Seconds | Feet / Sec | Feet | Seconds |
| 0 | | [H123W-6] | 895.27 | 217.79 | 8.06 | 19.56 | 892.80 | 5.61 |
| 1 | | [H148R-6] | 790.26 | 218.45 | 7.41 | 11.35 | 790.00 | 5.87 |
| 2 | | [I161W-10] | 1507.43 | 322.10 | 9.85 | 73.27 | 1416.93 | 7.57 |
| 3 | | [I218R-10] | 1444.78 | 334.13 | 9.45 | 63.75 | 1376.85 | 7.91 |
| 4 | | [I211W-10] | 2083.38 | 412.75 | 11.10 | 41.00 | 2059.48 | 8.77 |
| 5 | | [I285R-10] | 1981.78 | 427.86 | 10.70 | 28.87 | 1970.60 | 9.16 |
| 6 | | [I284W-10] | 2924.83 | 584.42 | 12.29 | 20.90 | 2920.87 | 10.49 |
| 7 | | [I366R-10] | 2656.66 | 544.49 | 11.88 | 16.74 | 2654.65 | 10.35 |
| 8 | | [244H153-8] | 1050.91 | 262.52 | 8.50 | 41.18 | 1026.19 | 6.75 |
| 9 | | [384I205-9] | 1805.56 | 387.54 | 10.60 | 19.05 | 1804.28 | 8.72 |
| 10 | | [512I285-10] | 2509.46 | 503.16 | 11.88 | 15.57 | 2509.45 | 9.97 |