

Rocket Data Sheet and Launch Record

Rocket Description		Recovery Information		Altimeter Two Data	
Owner:	Brady , Brandon S.	Ejection Occurred		Apogee Altitude:	392 Ft
Rocket Name:	Rainbow Rocket	“ During Ascent	“ At Apogee	Top Speed:	98 mph
Type:	Big Sharky	“ After Apogee	“ During Descent	Burn Time (burn):	2.2 sec
Length: (inches)	22.625 in.	“ Ejection Failure		Peak Acc (Pacc):	6.56 gs
Diameter: (inches)	1.645 in.	Parachute Deployment		Avg Acc (Aacc):	2.16 gs
Fins:	1/8 in. Balsa Wood	“ Full	“ Partial	Coast Apogee (C2AP):	3.4 sec
Listed Mass: (g)	73.1 g	“ Did not deploy		Apogee to Eject (AP2E):	1.1 sec
Date of Construction:	Sept. 19, 2014	Parachute Descent		Ejection Alt. (EALt):	381 feet
Recommended Motors:		“ Stable Descent	“ Tangled lines	Descent Speed (dESc):	10 mph
C6-3 and C6-5		“ Some swaying	“ Sprial descent	Flight Duration (durA):	30.4 sec
Center Gravity(CG):	37.4 cm	Reason for Recovery Failure		Altimeter Data Analysis	
Center Pressure(CP):		“ Damaged Chute		You could say that our rocket launch was pretty normal. Besides the descent, it was regular. We had an average descent time, average altitude, etc.	
Building Notes		“ Tight Upper Body tube			
-added poor matte finish and rounded off fins		“ Improper setup			
		“ Chute Separated			
		“ Motor Ejected			
Estimated Cd:	0.5	“ Unplanned Separation			
Predicted Altitude:	395 feet	“ Other		Prediction vs Actual Analysis	
Prediction Notes		Descent Speed		We predicted that the rocket would go 395 feet but our rocket actually went 392. We were really close to our prediction.	
According to the website we should be able to launch roughly 650 feet. We predict that our rocket will go roughly 395 feet. When you consider the average mass of the rocket, the atmospheric conditions, and any other varying aspect of the rocket or launch process, this seemed to be the		“ Slow	“ Average speed		
		“ Very fast	“ Ballistic		
		Landing			
		“ Soft	“ Water		
Launch Information		“ Tree	“ Caught on Wire		
Date:	9/26/2014	“ Hard	“ Crash		
Time of Launch:	2nd Period	“ Landed on Building		Post Launch Information	
Location:	CMS Soccer Parkin	Recovery		Flight Grade	
Rocket Mass(g):	73.1	“ Full Recovery	“ Lost	“ Excellent	
Motor:	C6 - 5	“ Not Recoverable	“ Parts lost	“ Good	
Motor Mass(g):	24.7	Distance & Direction from pad:		“ Fair	
Altimeter Mass(g):	9.9	Our rocket went up striaght but came down roughly 40-50 yards North of where we launched in the parking lot		“ Poor	
Liftoff Mass(g):	107.7	Recovery Notes		“ Rocket cannot launch again	
Wind Direction:	Southeast	Lauryn caught our rocket before it hit the ground. It is ready to launch again need be		Describe any damage to the rocket:	
Wind Speed:	6 mph			There was no damage done to the rocket. Our fins were not flush to the body before launch.	
Igniter:				Rocket Project Suggestions	
No. of tries to ignite:	2	Lessons Learned		I would tell them to apply less paint while still remaining creative. I would make sure to have everything flush to the rocket before you super glue. Don't add any sort of matte finish. Make sure you don't insert the ignition plug to far into the bottom of the engine.	
Ignition		We didn't have the white rings to put around our parachute circles so we had to makeshift something. Maybe have used more baby powder and less paint.			
“ Successfull	“ Blow Out				
“ Caught on clips	“ Motor Failure				
Trajectory					
“ Straight-Up	“ Spinning				
“ Corkscrew	“ Non-vertical	Launch Notes			
“ Into the wind	“ Unstable	Didn't know that he (Brady) had to hold the button down, so it took longer to launch. It went up relatively straight but came down more North of our location on the football field. It came down in a "corkscrew" fasion.			