

Rocket Data Sheet and Launch Record

Rocket Description		Recovery Information		Altimeter Two Data			
Owner:	Emma and Anika	Ejection Occurred		Apogee Altitude:	381 feet		
Rocket Name:	Lush	“ During Ascent	“ At Apogee	Top Speed:	109 mph		
Type:	Model Rocket (big)	“ After Apogee	“ During Descent	Burn Time (burn):	1.95 sec		
Length: (inches)	22.625	“ Ejection Failure		Peak Acc (Pacc):	8.6 gs		
Diameter: (inches)	1.645	Parachute Deployment		Avg Acc (Aacc):	26 gs		
Fins:	laser cut 1/8 balsa (“ Full	“ Partial	Coast Apogee (C2AP):	3.2 sec		
Listed Mass: (g)	2.5 ounces	“ Did not deploy		Apogee to Eject (AP2E):	0.0 sec		
Date of Construction:	9/19/2014	Parachute Descent		Ejection Alt. (EALt):	370 feet		
Recommended Motors:		“ Stable Descent	“ Tangled lines	Descent Speed (dESc):	8 mph		
c 6.5 c 6.3		“ Some swaying	“ Sprial descent	Flight Duration (durA):	37.5 sec		
Center Gravity(CG):	37.8 cm	Reason for Recovery Failure		Altimeter Data Analysis			
Center Pressure(CP):		“ Damaged Chute		Our launch of our rocket surpassed our prediction. All of the measurement recorded our considered to be in a good range.			
Building Notes		“ Tight Upper Body tube					
The glue leaked out of body tube, but it was easily fixed. Other than that everything went according to plan.		“ Improper setup					
		“ Chute Separated					
		“ Motor Ejected					
Estimated Cd:	0.5	“ Unplanned Separation					
Predicted Altitude:	320 Ft	“ Other		Prediction vs Actual Analysis			
Prediction Notes		Descent Speed		We underestimated our engine believing it would only go up 340 feet and it reached 381 feet on launch day.			
We believed that our rocket would reach 340 feet		“ Slow	“ Average speed				
		“ Very fast	“ Ballistic				
		Landing					
Launch Information		“ Soft	“ Water				
		“ Tree	“ Caught on Wire				
		“ Hard	“ Crash				
Date:	9/26/2014	“ Landed on Building		Post Launch Information			
Time of Launch:	9:17:00	Recovery		Flight Grade			
Location:	Soccer Field Parkir	“ Full Recovery	“ Lost	“ Excellent			
Rocket Mass(g):	68.3	“ Not Recoverable	“ Parts lost				
Motor:	C6-3	Distance & Direction from pad:					
Motor Mass(g):	24.5	30 ft South		“ Good			
Altimeter Mass(g):	9.9	Recovery Notes		“ Fair			
Liftoff Mass(g):	102.7	The rocket had a stable, slow descent. Landing of the rocket was sof and was fully recovered.		“ Poor			
Wind Direction:	SE			Describe any damage to the rocket:		We had no damage to our rocket. Flight grade is excellent.	
Wind Speed:	6 mph						
Igniter:	estes						
No. of tries to ignite:	1	Lessons Learned		Rocket Project Suggestions			
Ignition		We would follow the same steps as before due to the success of our first launch.		Make sure to carefully put in your parachute so it can come out once it reaches apogee.			
“ Successfull	“ Blow Out						
“ Caught on clips	“ Motor Failure						
Trajectory							
“ Straight-Up	“ Spinning						
“ Corkscrew	“ Non-vertical						
“ Into the wind	“ Unstable						
Launch Notes							
The rocket shot up straight but shifted south due to the wind. The rocket then gradually made its way back down to Earth. Ignition was successful.							