# Rocket Data Sheet and Launch Record

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Rocket Description			
Owner:	Zena, Brittany, Pai		
Rocket Name:	Deathnote		
Type:	Big Sharky Rocket		
Length: (inches)	22.63 in	Ì	
Diameter: (inches)	1.65 in	Ì	
Fins:	3	İ	
Listed Mass: (g)	70.873 g	İ	
Date of Construction: 9/26/2013		i	
Recommended Motors: (G only)			
C6-5			
			-
Center Gravity(CG):	15 in		
Center Pressure(CP):	13 111		
Estimated Cd:			
	400		
Predicted Altitude:	400		
Prediction According to the restuls fi			
I predicted that our rocket			
hundred meters. I came to			
seeing that the lightest roc			
higher. Our rocket is significant the area that had last very			
the ones they had last year So I predicted we may do			
year than last year.			
Launch Info	rmation		
Date:	10/9/2013		
Time of Launch:	6th hr		
Location:	behind school		
Rocket Mass:	68.8 g		
Motor:	C6-5	İ	
Motor Mass:	25.3g	Ì	
Altimeter Mass:	6.7g	Ì	
Liftoff Mass:	101.1 g	İ	
Wind Direction:	south		
Wind Speed:	fast/ windy		
Igniter:	estes		
No. of tries to ignite:	once		
" Successfull "Blow Out			
	" Motor Failure		
" Caught on clips			
Traject			
" Straight-Up	" Spinning		
" Corkscrew	" Non-vertical		
" Into the wind	" Unstable		
Launch ?			
We pointed the rocket with the wind in hopes that it would counter-act the wind's tendancy to			
push the heavier part of the gets blowed with			
the wind causing the nose cone to go the			
annagita way. It want un narfaat and mada a			

Launch miormanon			
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Trajectory			
" Straight-Up	" Spinning		
" Corkscrew	" Non-vertical		
" Into the wind	" Unstable		
Launch N			p
We pointed the rocket wit			1
that it would counter-act t			П
push the heavier part of th			i
	the wind causing the nose cone to go the opposite way. It went up perfect and made a		ŀ
curve path downward with		L	ŀ
after apogee but the parac			
off also a hard landing but rocket recovered			
		_	

ata Sneet ai	10 Launch		
Recovery Information			
Ejection Occurred			
" During Ascent	" At Apogee		
" After Apogee	" During Descent		
" Ejection Failure			
Parachute I	Deployment		
" Full	" Partial		
" Did not deploy			
Parachute	e Descent		
" Stable Descent	" Tangled lines		
" Some swaying	" Sprial descent		
Reason for Re			
" Damaged Chute			
" Tight Upper Body tube			
" Improper setup			
" Chute Separated			
" Motor Ejected			
" Unplanned Separa	ation		
" Other			
Descen	t Speed		
" Slow	" Average speed		
" Very fast	" Ballistic		
Lane	ding		
" Soft	" Water		
" Tree	" Caught on Wire		
" Hard	" Crash		
" Landed on Buildi	ng		
Reco	very		
" Full Recovery	" Lost		
" Not Recoverable	" Parts lost		
Distance & Direction			
100 yrds or so and sou	uth		
Recover	•		
rocket recovered fine even with hard			
landing			

#### Lessons Learned

pick a less windy day, fold the parachute a ittle tighter so it isn't too big and louged nto the shaft

Altimeter Two Data		
Apogee A	Altitude:	358 Ft
Top Spee	ed:	94 m/s
Burn Tin	ne (burn):	2.1 s
Peak Acc	(Pacc):	8.7 s
Avg Acc	(Aacc):	2 m/s/s
Coast Ap	ogee (C2AP):	3.1 s
Apogee t	o Eject (AP2E):	2.8 s
Ejection .	Alt. (EALt):	257 Ft
Descent S	Speed (dESc):	35 m/s
Flight Du	ration (durA):	12.6 s

## Altimeter Data Analysis

The maximum altitude reached was 358, 42 ft lower than we had predeticed at 400 ft. Our top speed was 94m/s and the flight diration was 12.6 s. It said that the ejection time was around 3.1 sec but the apogee to eject was 2.8s. The only thing with that though is that I think it ejected before it reached apogee so the altimiter might not have registered it. It took 8.7 s to reach the peak accelartion then costed to apogee for 3.1 s cording to the altimeter and after 2.8s it ejected the nose cone and it started falling down back to Earth. I wasn't surprised how fast our descent speed was because our parachute never got realeased.

#### **Post Launch Information**

# Rocket Damage

- No Damage
- Scuffed Paint
- Launch Lugs
- **Engine Stuck**
- Fins Damaged

Describe any damage to the rocket: None even though parachette didn't go off and it landed hard the rocket was fine when recovered

## Flight Grade

- Excellent
- Good
- Poor

# **Rocket Project Suggestions**

pick a less windy day and carefull of parachette not getting lodged in the body of the rocket. I also wonder if the fact that our nose cone got stuck after the painting if that had anything to do with the parachute sticking?