Team	**Rocket/Project Name**	**Date**		
Hazard	**Possible Causes**	**Risk of Mishap and Rationale**	**Mitigation Approach**	**Risk of Injury after Mitigation**
Explosion of solid-propellant rocket motor during launch with blast or flying debris causing injury	Cracks in propellant grain	Medium; student-built motor with limited testing and nondestructive evaluation capability	Pressure test motor case (with end closures) to 1.5 maximum expected operating pressure	Low
	Debonding of propellant from wall		Visually inspect motor grain for cracks, debonds, and gaps during and after assembly	
	Gaps between propellant sections and/or nozzle		Use ductile (non-fragmenting) material for motor case	
	Chunk of propellant breaking off and plugging nozzle		Inspect motor case for damage during final assembly before launch	
	Motor case unable to contain normal operating pressure		Only essential personnel in launch crew	
	Motor end closures fail to hold		Launch crew 200 feet from rocket at launch, behind barrier (vehicle)	
Note: other hazards common to virtually all rockets:				
Rocket deviates from nominal flight path, comes in contact with personnel at high speed				
Recovery system fails to deploy, rocket or payload comes in contact with personnel				
Recovery system partially deploys, rocket or payload comes in contact with personnel				

Recovery system deploys during assembly or prelaunch, causing injury				
Main parachute deploys at or near apogee, rocket or payload drifts to highway(s)				
Rocket does not ignite when command is given (“hang fire”), but does ignite when team approaches to troubleshoot				
Rocket falls from launch rail during prelaunch preparations, causing injury				