

Rope Dart Risk Assessment

Activity Description: Performer manipulates a weighted dart or soft-tipped projectile attached to a rope. Used in martial arts demonstrations, fire performances, or stage shows.

Hazards Identified:

Hazard	Who's at Risk	Potential Harm
Impact injury from dart (self-strike)	Performer	Bruises, cuts, eye injuries, concussions
Impact injury to others	Audience, crew	Bruises, lacerations, eye injury
Entanglement or tripping on rope	Performer, crew	Falls, sprains
Equipment failure (rope break, dart detaches)	Performer, audience	Flying projectile injury
Poor visibility or restricted space	Performer, audience	Increased collision risk
Fire hazard (if using fire rope dart)	Performer, audience	Burns, ignition of surroundings
Fatigue or loss of focus	Performer	Reduced control, accidents

Risk Evaluation (Before Controls): Likelihood: Medium; Severity: Medium–High; Overall Risk Level: High.

Control Measures:

Training & Competence

- Only trained individuals should use rope darts in public performances.
- Practice extensively with non-fire, soft training darts first.
- Maintain good spatial awareness and control.

Equipment Safety

- Use high-quality rope and securely attached darts.
- Inspect rope and dart before each use for wear, fraying, or loose fittings.
- Use softer practice darts in rehearsals.

Performance Environment

- Maintain a large, clear space free of obstructions.
- Mark a safety perimeter to keep audience at a safe distance.
- Ensure adequate lighting so the performer can see rope and dart clearly.

Personal Protective Equipment (PPE)

- Wear eye protection and padded clothing during training.
- Tie back long hair and secure loose clothing.

Fire-Specific Precautions (if using fire rope dart)

- Use only approved fuels and fireproof gear.
- Have fire extinguishers, fire blankets, and a trained fire safety assistant nearby.
- Never perform with fire indoors unless venue is fire-rated and approved.

Emergency Planning

- Have a first aid kit available on site.
- Brief all staff on emergency procedures.
- Have spotters who can intervene or signal if something goes wrong.

Fatigue Management

- Take breaks during long sessions to maintain focus and grip strength.
- Hydrate and stretch before and after performing.

Risk Evaluation (After Controls): Likelihood: Low–Medium; Severity: Medium; Overall Risk Level: Medium (Acceptable with controls).

Residual Risk: There is still inherent risk of self-injury or minor audience injury due to projectile motion. Adequate insurance and documented risk controls should be in place.

Review: Review this risk assessment before each performance or training session, especially if equipment, venue, or conditions change.

Assessed by: _____ **Date:** _____

Approved by: _____ **Date:** _____