

Safety Risk Assessment ELI5

[A collection of notes, text and pictures taken from several sources I made for personal use, about the topic of Safety Risk Assessment (SRA). This is but a rough guide. To be sure, do your own research.]

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1 Brainstorming

1.1 Applicable Lifecycle Phases

1.2 Bad things that can happen

- Things coming loose.
- Bad manufacturing, breaks.
- Things breaking.
- Power
- Connect to power. Starts lifting immediately.
- Battery issues (gas, explosion, charging too much, lack of power)
- Damaged connectors - thing works unexpectedly
- Two things look similar. Operator uses the wrong one.
- Some screw is not properly screwed, gets loose.
- Interface for handling lacking, do it in weird dangerous way.
- Some tool is missing, people wing it somehow. Bad.
- Make a lot of force to get something to move (abnormal). Suddenly moves when putting a lot of force.
- Space too tight. Crushed, can't escape.
- People don't see something, or someone. Something bad happens.
- Operator can't get a good view to do some action. Goes into awkward position or dangerous zone.
- Braking force of something is not enough to keep something else stopped. Starts moving. Danger.
- Operator gets distracted.
- Something slides off or out of something else.
- Something gets stuck.
- Unstable. Can topple or fall.
- Sharp edges, cutting or bumping limbs into them.
- Slippery.
- Bad communication between two operators. One gets hit/crushed/...
- Tripping on something on the floor.
- Someone forgets an action step, something bad happens because of it.
- Too much force to do something. Strain. Fatigue. Or hand slips when applying that force.
- Removing something from the tool because operator thinks it should be removed (eg after use).
- Body parts near/in moving parts, get stuck, cut, crushed.
- Working at height, falls.

2 How to describe a risk

To correctly describe a risk you have to mention:

- The action
- Timing (when)
- Place (where)
- Circumstances
- The hazard
- The possible harm

3 Other info

Potentially hazardous situations that can occur during **intended use**.

Potentially hazardous situations arising from **reasonably foreseeable misuse**.

Risk = possibility of something bad happening

Risky = where it is possible of bad thing happening

Hazard = the bad thing

Hazardous = in which there is a bad thing (we can talk about a hazardous event hypothetically, so in the chance it would happen, would be bad. Then we don't use the word Risky.)

Frequency vs Probability. Frequency is exposed time. Probability is danger risk while exposed. Something can be still very likely, but now the exposure is so little (1 in 1000 years) it doesn't matter. Or the opposite: unlikely, but permanently exposed.

