

Hereinafter, the four different basic safety principles applicable in HRC are explained:

1. Safety-rated monitored stop

Robot stops when operator enters the collaborative workspace and continues when the operator has left the collaborative workspace.

2. Hand guiding

Robot movements are controlled by the operator.

3. Speed and separation monitoring

Contact between operator and moving robot is prevented by the robot.

4. Power and force limiting

Contact forces between operator and robot are technically limited to a safe level.