

Industry 4.0 increased AI, sensors, robots' capabilities
and fear of worker displacement

We need Human-centered Automation/AI



Collaboration can
mitigate weakness or
enhance strengths

INTEGRATE human & systems rather than REPLACE humans



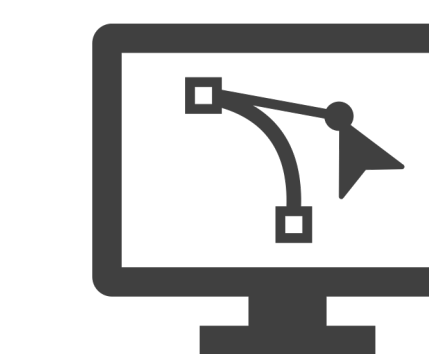
Augmented or Virtual Reality Support



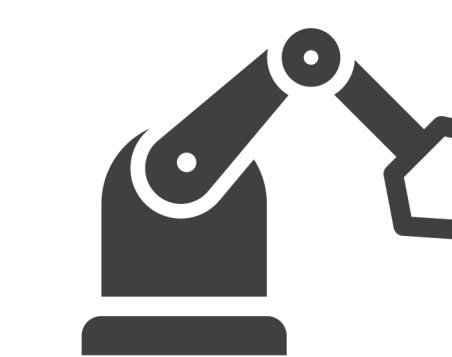
Training



Real-Time Monitoring



Adaptive Visual Displays & Alerts



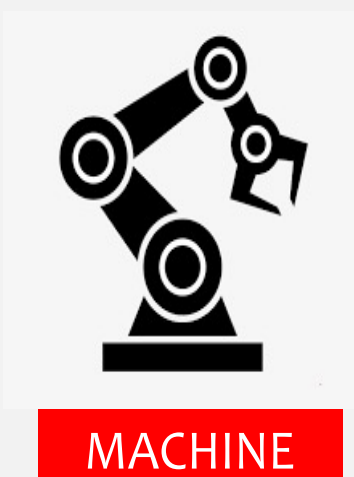
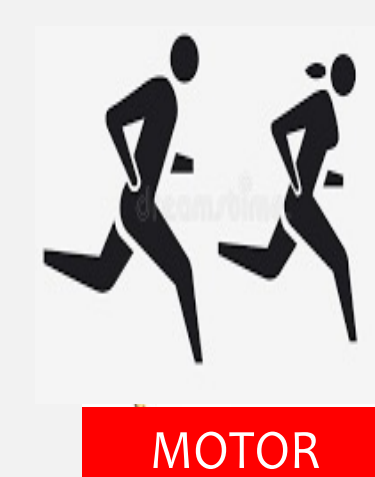
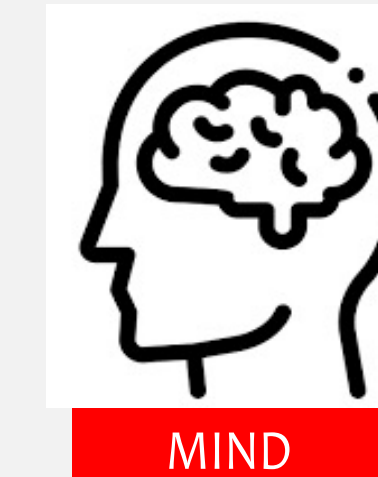
Adaptive Task Allocations



Improved Human-System Fluency

Support & Augment Human Capabilities

Design systems at the intersection of
the mind, motor, and machine



- ↓ Performance
- ↓ Safety
- ↑ Liability
- ↓ User Satisfaction

Pertinent Human Factors Considerations

Ignoring human factors

