

Adopting a human-centered approach to robot design

Over the last years, robots have been increasingly portrayed as a danger to people's employment, and job loss due to automation has become one of workers' biggest concerns.

Reality is somewhat different however, and in fact the changing nature of manufacturing is creating a greater need than ever for people and robots to work together.

This allows people to contribute what they do best – adaptability and problem solving for constant change, while robots contribute tireless endurance for repetitive tasks. The result is that people have safer and more ergonomic, rewarding roles, while businesses can grow – and create more jobs – through greater efficiency and productivity.

ABB foresaw the benefits of people and robots working together years ago, and took up the challenge of creating a new type of robot – one which could productively work in the same space as a person while keeping them completely safe, without the need of safety fences or barriers.

The result was [YuMi](#), the world's first truly collaborative robot. *YuMi* – short for You and Me – is a small parts assembly robot primarily deployed in the electronics industry, but with potential use in other areas.

YuMi has soft padded arms, can stop moving in milliseconds when inadvertent contact occurs, and also has no pinch points between its two highly flexible arms.

YuMi is also intuitive to program, which makes it accessible to first time robot users and the small and medium businesses which form the backbone of many economies. This ease-of-use also helps address skill gaps and provides more interesting and creative work for front-line factory workers, who do not require advanced training to set up or operate *YuMi*.



YuMi at an electronics factory

(click image to watch video)