## Robots will make a coffee for you

In a new development University of Edinburgh is using artificial intelligence (AI) to power a robot which could make you a cup of coffee, even in a busy kitchen setting.

The robot would be able to interact with its surroundings and act more like a human than ever before. The machine would have fine-tuned motor skills and cutting edge AI. Robots have previously struggled in dynamic situations such as kitchens as they are unpredictable environments. Scientists have been able to programme robots to carry out pre-programmed tasks but not working in a way which requires it to adapt and react.

The new device is a robotic arm with joints and it can first of all interpret the verbal instructions and secondly work out the surroundings it is in. The team is confident that it can adapt to the unforeseen such as someone bumping into it or moving the mug (which it has to first of all find) unexpectedly.

Ruaridh Mon-Williams, of the University of Edinburgh's School of Informatics, who is a PhD student jointly at University of Edinburgh, Massachussetts Institute of Technology and Princeton University, said: "We are glimpsing a future where robots with increasingly advanced intelligence become commonplace. Human intelligence stems from the integration of reasoning, movement and perception, yet AI and robotics have

often advanced separately. Our work demonstrates the power of combining these approaches and underscores the growing need to discuss their societal implications."





