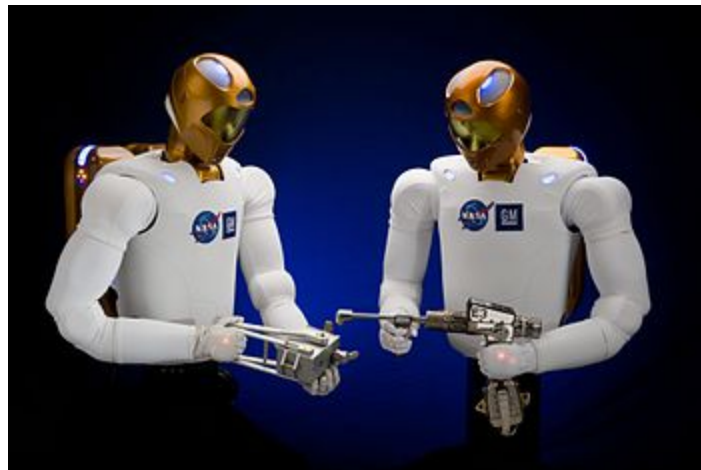


Quiz 1: Finite State Machines



Robonaut is a robotic, humanoid astronaut aboard the International Space Station. She is tasked with making coffee for the astronauts. Despite their ability to participate in the miracle of drinking coffee in a satellite 400 kilometers above the Earth, the astronauts are picky. Hannah drinks her coffee black. Elena likes hers with just milk. Anton likes his with both milk and sugar. Barry likes his coffee with whiskey and milk. So they don't get their coffees mixed up, Robonaut punches the appropriate buttons in the lid (milk, sugar, whiskey) to indicate the contents of the coffee.

Draw a finite state machine for Robonaut. Label or list your inputs, outputs, and states.

Disclaimer: Robonaut does much more useful things than making coffee for astronauts, but is in fact a robotic, humanoid astronaut aboard the ISS. All names except Hannah's are those of astronauts aboard the ISS right now. Barry Wilmore probably does not put whiskey in his coffee since he is the Commander. Also they probably didn't bring much whiskey to space.