

Kitchen Pro 5000

Locomotive Strategy

It uses treads turned by wheels that are attached to the side of the machine. To turn, it keeps the tread on the side that it wants to turn stationary, and keeps the other one rolling. The outside of each tread would have rubber cogs to maintain friction on the kitchen floor, and the wheels turning the treads would be vertically stationary, because they wouldn't have to individually turn.

Sensing Suite

It uses a camera on the front of it to determine obstacles and target points, and it would have infrared sensors to be able to use depth perception. It would also be autonomous, so it would have a built in automatic controller.

Actuating Suite

We would use six actuators on each arm so they would have various joints. Including a clamp for a hand. It would also have one actuator for each tread. It would act based on what is seen through the camera, and using its treads.

Application Area: Residential

It would be able to move around the kitchen using its treads and open the fridge, cupboards, microwave, and make meals using its arms and clamps/'hands'.

