

## The Recyko

Our robot is called “The Recyko.” It is an invention to help crush and sort out recyclable cans and bottles. It sits on top of a large receptacle with one trash bag on the right and one on the left. The “Recyko” has a swinging trap door connected to a servo where the recyclable is placed. The program controls which side it swings to with the use of a line follower under it that detects whether a can or bottle is on the door. The sensor values are larger when there’s a bottle and smaller when there’s a can on the trap door. Recyko also has a can crusher that is attached to 4 linear slides controlled by two 393 motors set for high torque. A touch sensor stops the can crusher at the correct height.

The Recyko is a very helpful robotic device for many reasons. One reason is it can sort by itself, so no one can put the cans in the bottle bag or the bottle in the can bag by mistake. This takes away the frustration of having to resort the recyclables again and saves valuable time. You also don’t have to go through the back aching process of sorting and getting your hands dirty from the sticky recyclables. The “Recyko” also crushes cans to save space and again valuable time. The “Recyko” is a very useful tool to encourage people to recycle and to make the earth a cleaner place.