CAN ROBOTS HELP WITH TRASH SEGREGATION?


Iceland Liechtenstein Norway grants

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

13 CLIMATE ACTION

Julia Witek, Sara Widlińska, Patrycja Martyniak, Melania Żurawik, Lena Ceranowicz

Landfills are overloaded with trash and what's worse most of the time they aren't segregated. This is a huge problem for the environment and therefore we wanted to create a prototype for a robot that could aid in solving this problem.
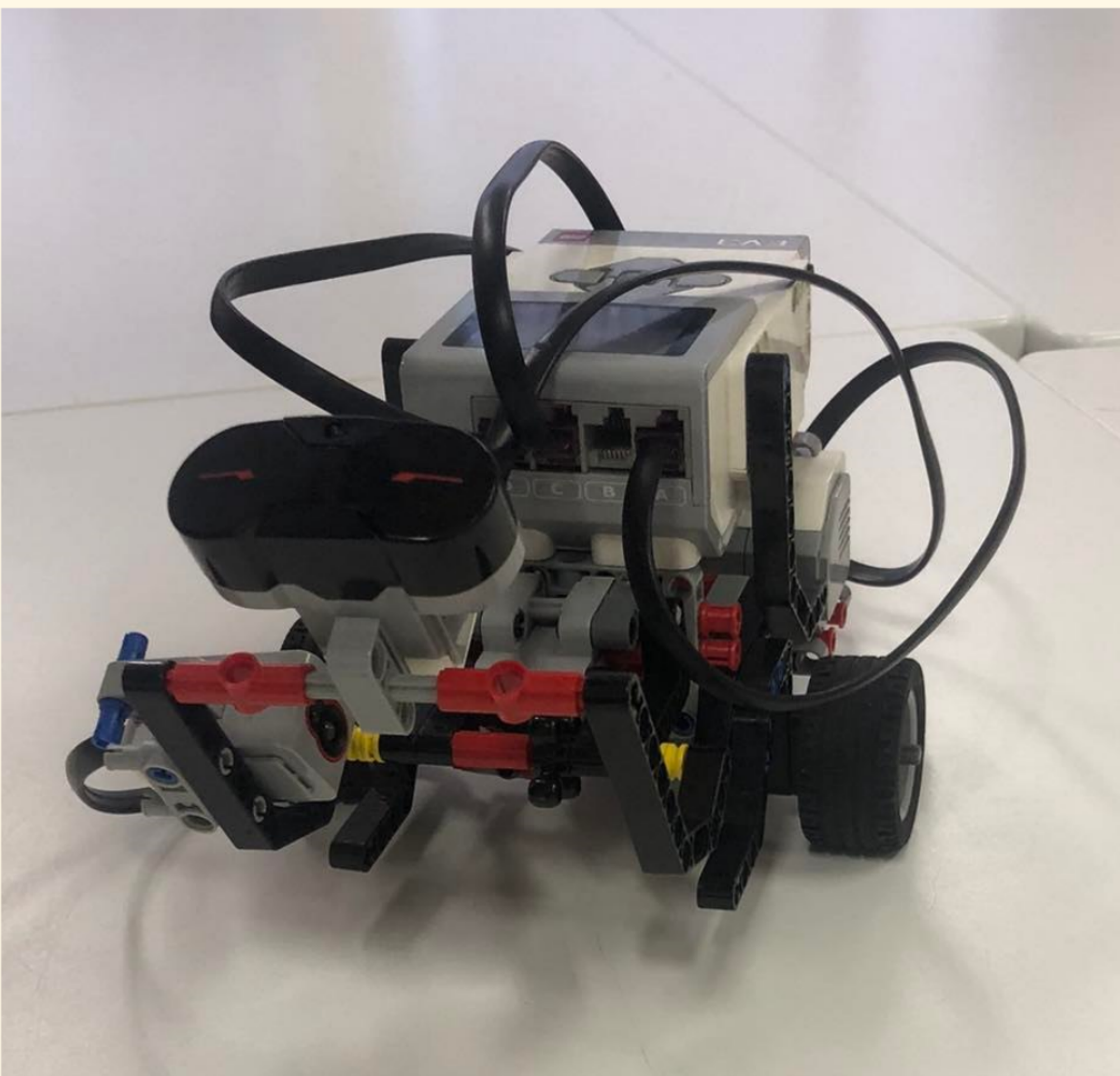
We used LEGO® MINDSTORMS® Education EV3 to build our robot and EV3 Classroom LEGO® Education to program it.

LEGO® MINDSTORMS® Education EV3
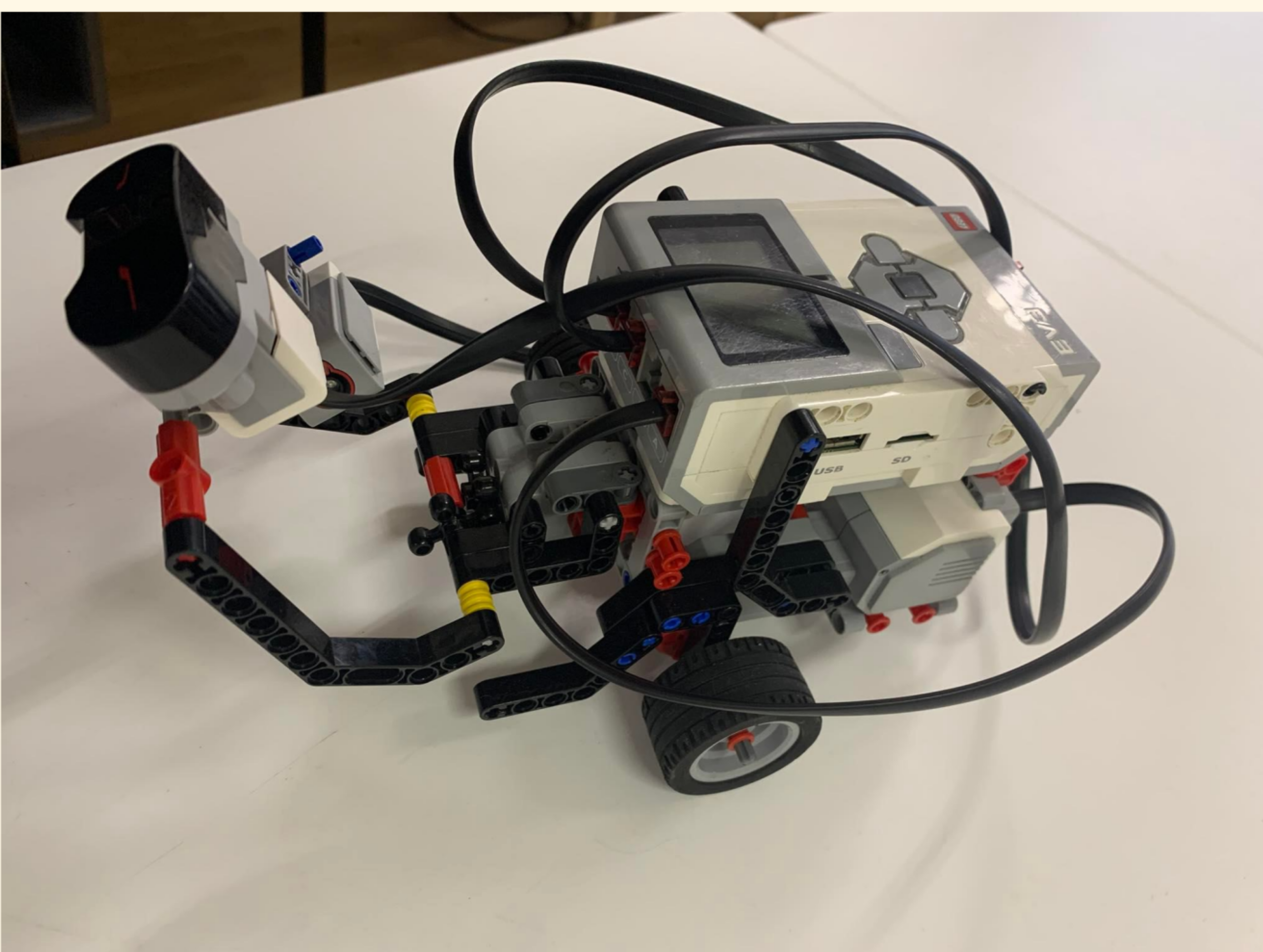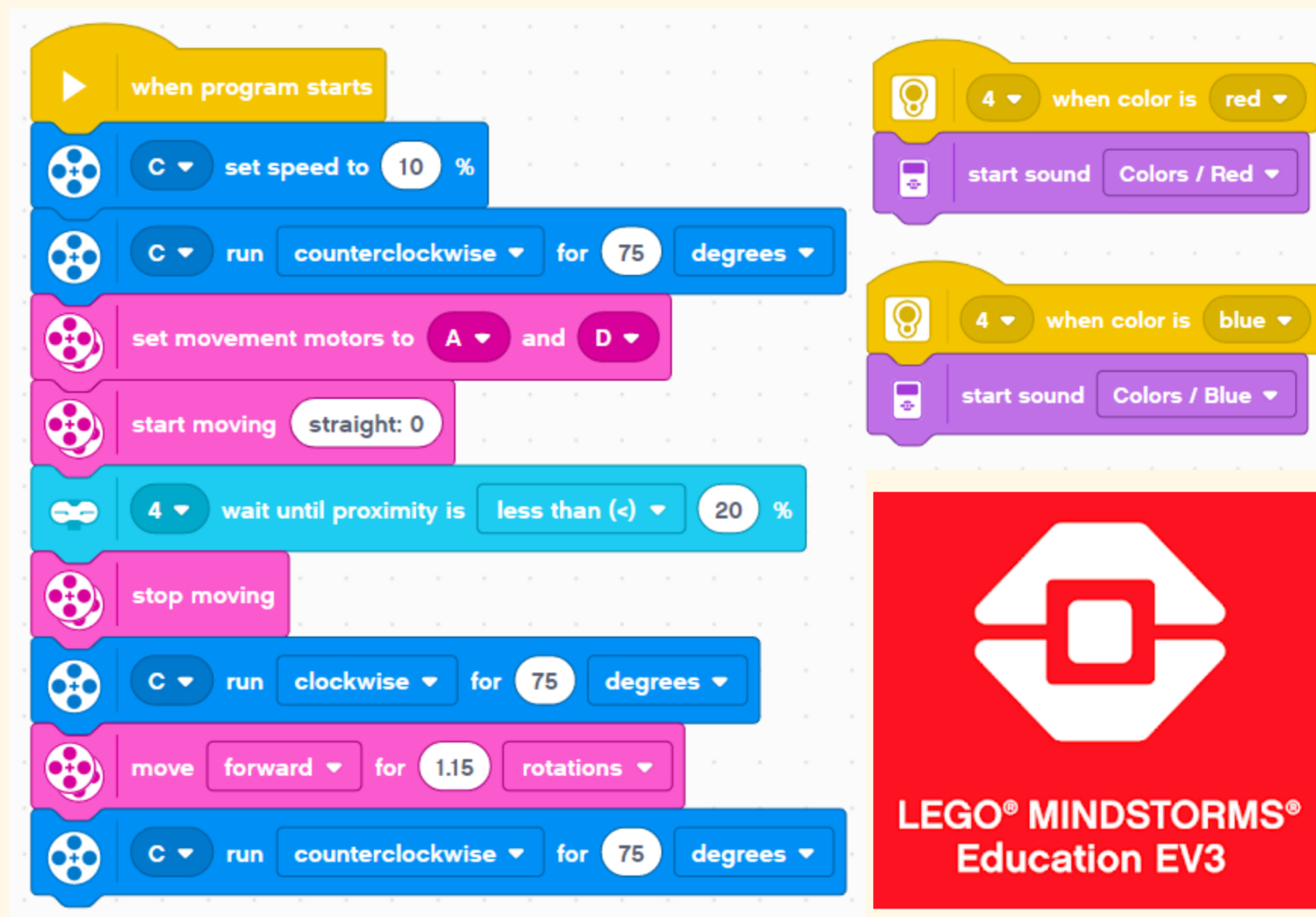
The robot drives until the proximity sensor detects an object in front of it. It raises its arm and moves forward so that when the arm goes down the object will be inside. The color sensor is then able to differentiate the color (in our case red and blue) which is then said. This is the first step needed to having it segregate trash.