

Recycling Robot

Team #65665B

Iker Lamiquiz

I have made a robot that is capable of lifting things from recycled material. I really liked this challenge due to the fact that I had to work with recycled material.



I have used two corks as wheels to be able to move the robot and not stay in one place and I have joined the two wheels with an axle made from a wooden stick. Then I have made a platform with a base of wooden sticks and pipe cleaner that I attached with tape. The platform is attached to a straw that surrounds the pole that connects the two wheels. It is attached to a straw because if it were attached directly to the wooden pole that connects the two wheels, the platform would spin with it. So this would not happen, it occurred to me to put a straw with a greater diameter than the wooden stick so that it would not be glued to it. That would prevent it from rotating at the same time, allowing the platform in charge of lifting things to remain stable. It also has a stick glued to the back of the platform pointing up that is used as a lever to raise the platform.



This robot is capable of lifting objects up like wood sticks, paper or cardboard. The prototype doesn't have the ability to lift heavy objects. A more complex prototype could lift heavier objects. It could even be controlled remotely by moving the robot in all directions by putting a motor on each wheel and another to lift the platform. One of the challenges I had was to get the robot to move without the platform rotating at the same time as the wheels, to ensure that this did not happen I had to glue the platform to a straw that did not rotate at the same time as the wheels.

If I had to build this robot again, I would improve the platform by making it solid and also improve the lever that makes it lift so that it can support more weight and thus be able to hold more materials. I also think is a good idea to add a third smaller wheel at the end of the platform to make it easier to transport the robot. I would also change the pipe cleaner for something more solid such as wooden sticks and tape so that apart from the platform it would be more solid; it would be glued to the wheels and the wooden stick that joins them. I also think that if the robot were bigger it would be able to lift bigger and heavier objects and it would be more difficult to break and it would look better than now.