

Pooper Scooper Challenge

Task Description

Your task is to design a robot (a *PoopBot*) that can move towards a piece of fake poop, pick it up and dispose it. Design a scoop and attach it to your robot, then program it to remove the poop. Your *PoopBot* must begin behind the start line.

Bonus points for if you can dispose of the poop in the designated area.

Materials Needed

- Fake poop or some brown blocks
- Masking tape or electrical tape for floor
- An 8.5 x 11 piece of paper folded in half

Set up

Place a piece of fake poop on the floor. Make a mark on the floor with tape about 30-50 cm away. Setting up the robot at the same start location ensures consistency and will help with programming.

Mark another area with a piece of paper or cardboard taped down at least 50-100 cm away for the poop disposal. It is your choice whether or not to have the start, fake poop and disposal in a straight line.

Note for Teachers

- The robot does not require any sensors
- Students are challenged to design and create their arms for picking up and disposing of the fake poop
- Programming requires incorporating measurement of distance and angles in terms of wheel rotations, which requires multiplicative and proportional thinking

Design Notes



The fake poop can be a little slippery to pick up. A couple of innovative Grade 5 teams partnered up to make this task work. We gave them bonus points for working together.

[Click here to see their video perform.](#)