

Idea Sheet

Stop the Spread: Develop a robot to keep people healthy!

Your Robot

Name

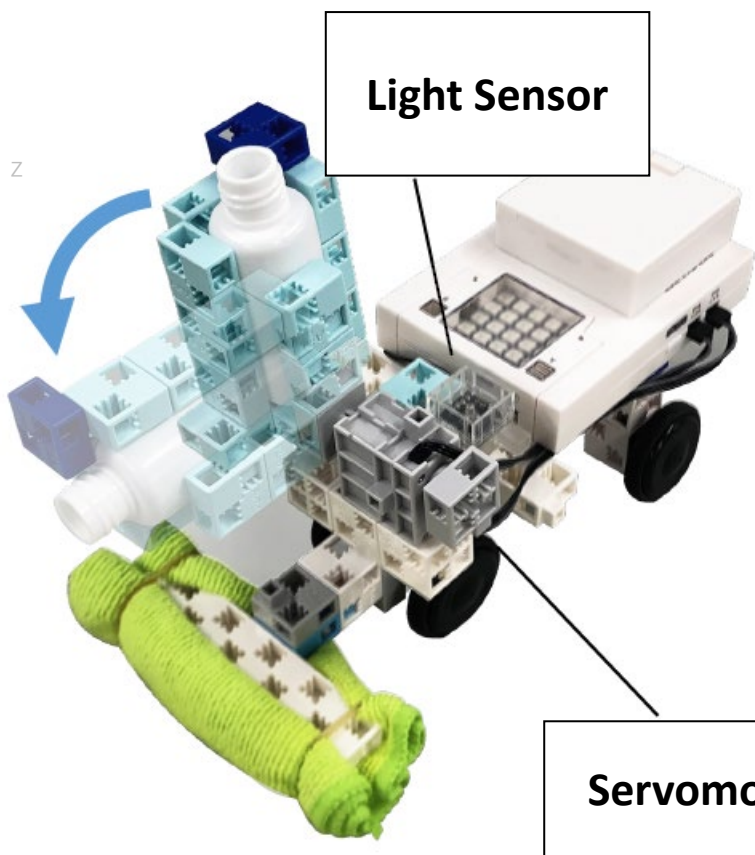
Tom Artec

Grade

5

Clean while no one's around! Automated Disinfecting Robot

Paste picture or programs for your idea here



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When A button is pressed
  set count to 1
  forever
    if Light sensor P2 < 80 then
      DC motor M1 power 100
      display 80 on LED
      Set servomotor P15 to 0 degrees
      wait 0.5 seconds
      Set servomotor P15 to 90 degrees
      wait 1 seconds
      clean
      Set servomotor P18 to 90 degrees
      wait 0.5 seconds
      DC motor M1 rotate clockwise
      wait 5 seconds
      rotate
      change count by 1
    else
      turn all LEDs off
      DC motor M1 stop brake
  end
function clean
  set angle to 100
  repeat 3
    Set servomotor P16 to angle degrees
    wait 0.5 seconds
    DC motor M1 rotate clockwise
    wait 1 seconds
    DC motor M1 stop brake
    DC motor M1 rotate counter-clockwise
    wait 1 seconds
    DC motor M1 stop brake
    wait 0.5 seconds
    change angle by -15
function rotate
  if count mod 2 = 0 then
    set rotate to 100
  else
    set rotate to 80
  Set servomotor P15 to rotate degrees
  wait 5 seconds
  Set servomotor P18 to 90 degrees
  wait 1 seconds
  DC motor M1 rotate counter-clockwise
  wait 0.5 seconds
  DC motor M1 stop brake
  
```

1. Where do you use it?

At offices and public places.

2. What does it help you do?

It cleans and disinfects when no one is around.

3. How do you use it?

It won't work when it's light out, but if you press the A button it will start working when it gets dark.

It uses its Servomotor to pour alcohol from the bottle onto the floor then uses its towel to wipe the floor down. It starts by driving straight then turns to make sure it cleans up the whole floor.

4. What inspired you to make this robot?

I thought that it's really easy to keep your hands clean but it's hard to disinfect floors and tables by yourself.

Since it's hard to clean when it's light out and people are in the room, I used a Light Sensor to make it run when it gets dark out.

5. What part of your idea did you put the most work into?

I made sure that it soaks up all of the alcohol from the floor by programming it to drive over the alcohol over and over again.