VEX Robot Bottle Collector

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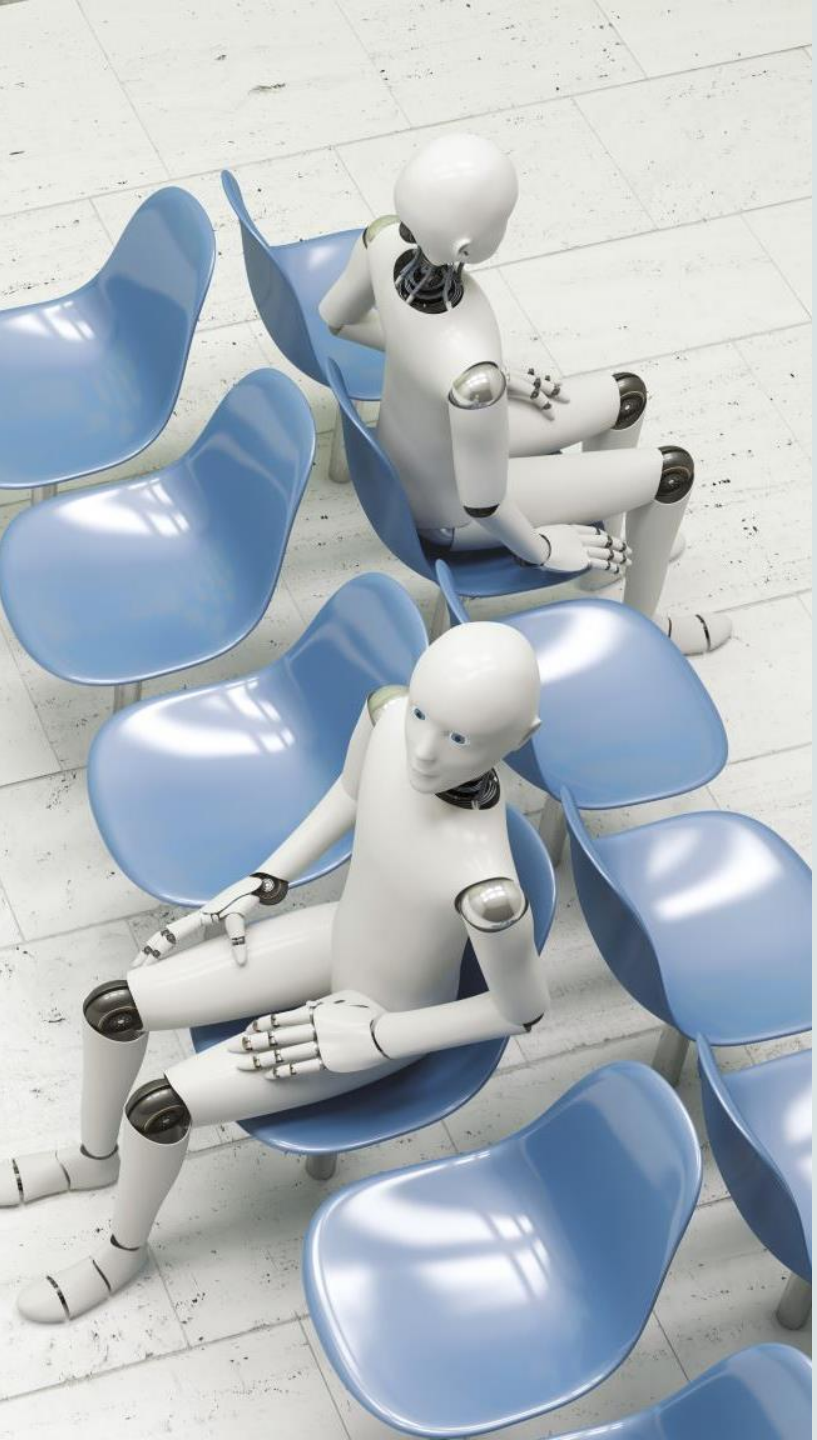


What It does

- The robot performs a search for an object on a table and returns the object to the user allowing for collection
- This robot would be useful as a rubbish collection aid in mass cleanups of areas

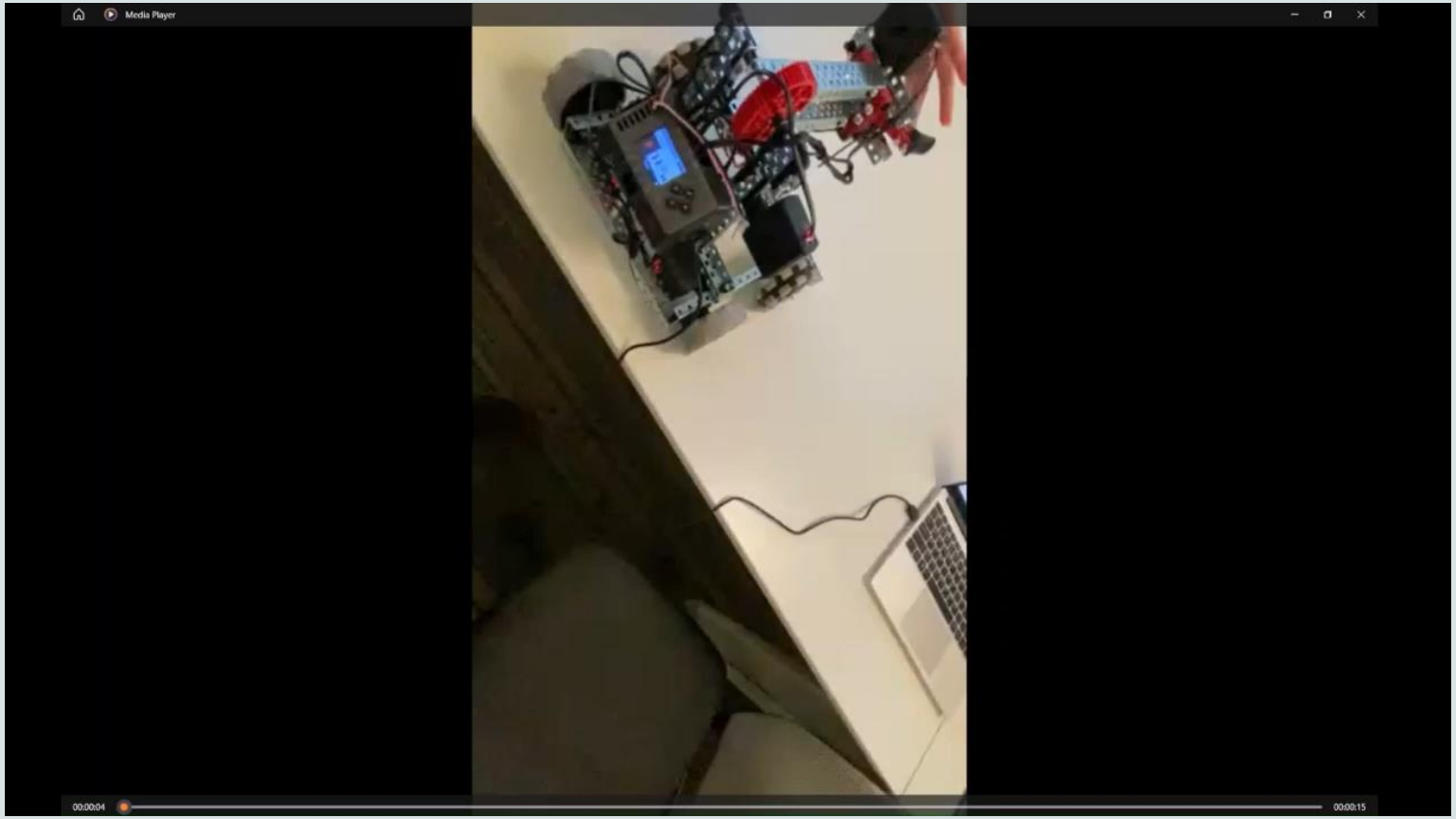
What sensors it uses

The Code being Performed Video 1

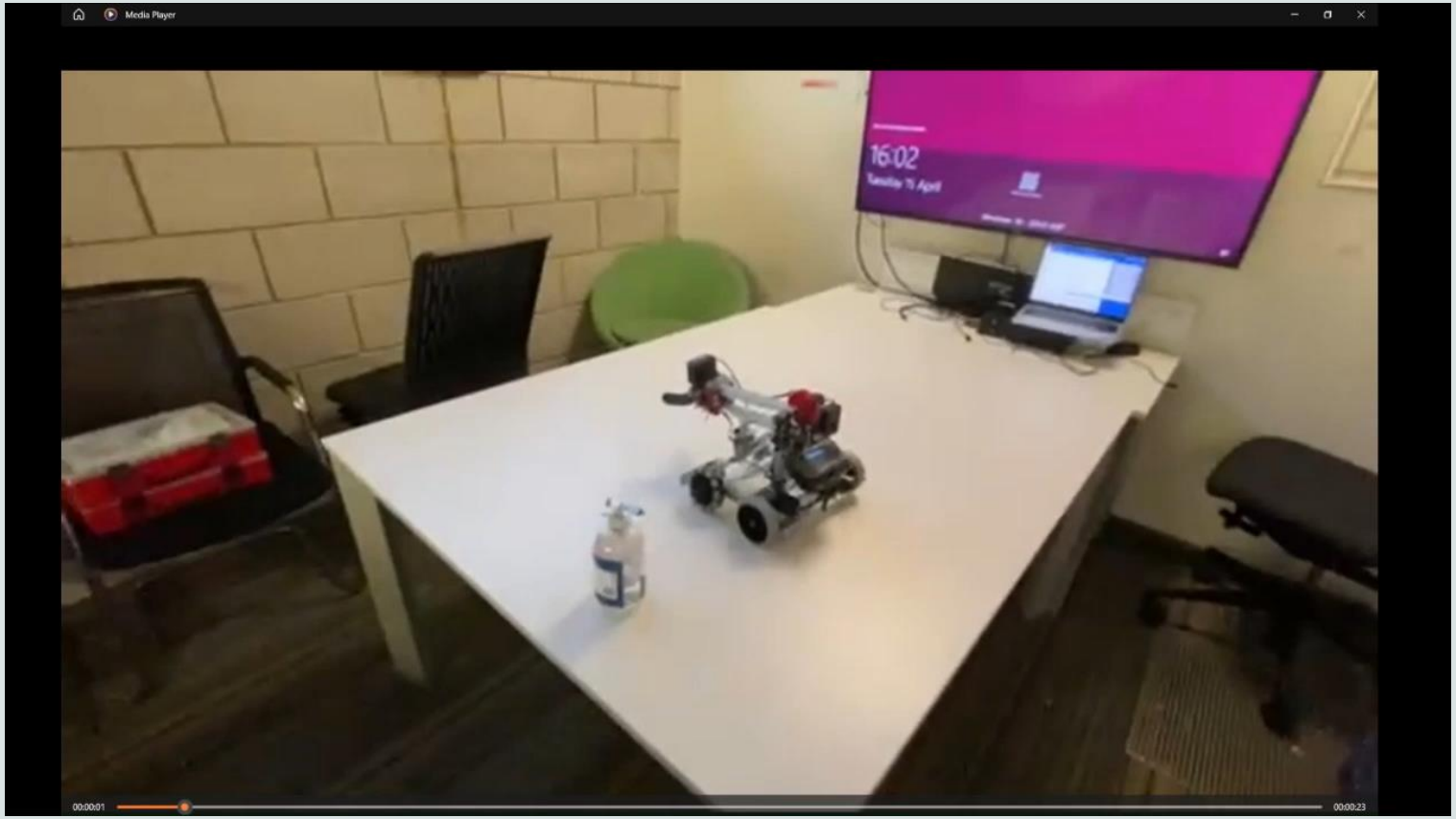
```
def findObject():
    #move until it finds and object on table
    count1 = 0
    while distance_7.object_distance(MM) > 1000:
        print(distance_7.object_distance(MM))
        if count1 == 100 or distance_7.object_distance(MM) < 300:
            go1 = True
            break

        motor_group_6_motor_a.spin_for(FORWARD,45,DEGREES)
        count1 += 1
```

```
#move towards object
while go:
    print(distance_7.object_distance(MM))
    print(distance_Down.object_distance(MM))

    #if object is close stop moving
    if distance_Down.object_distance(MM) > 110:
        motor_group_6.spin_for(REVERSE, 720, DEGREES)
        motor_group_6_motor_a.spin_for(FORWARD,180,DEGREES)
        findObject()

    #if robot going off table stop
    elif distance_7.object_distance(MM) < 95:

        motor_4.spin_for(FORWARD,90,DEGREES)
        motor_3.spin_for(FORWARD,90,DEGREES)
        go = False
    #count how far forward robo has moved
    else:
        count += 1
        motor_group_6.spin_for(FORWARD,180,DEGREES)

#return to person
while count > 0:
    motor_group_6.spin_for(REVERSE,180,DEGREES)
    count -= 1
motor_group_6_motor_a.spin_for(FORWARD,1080,DEGREES)
motor_4.spin_for(REVERSE,90,DEGREES)
```

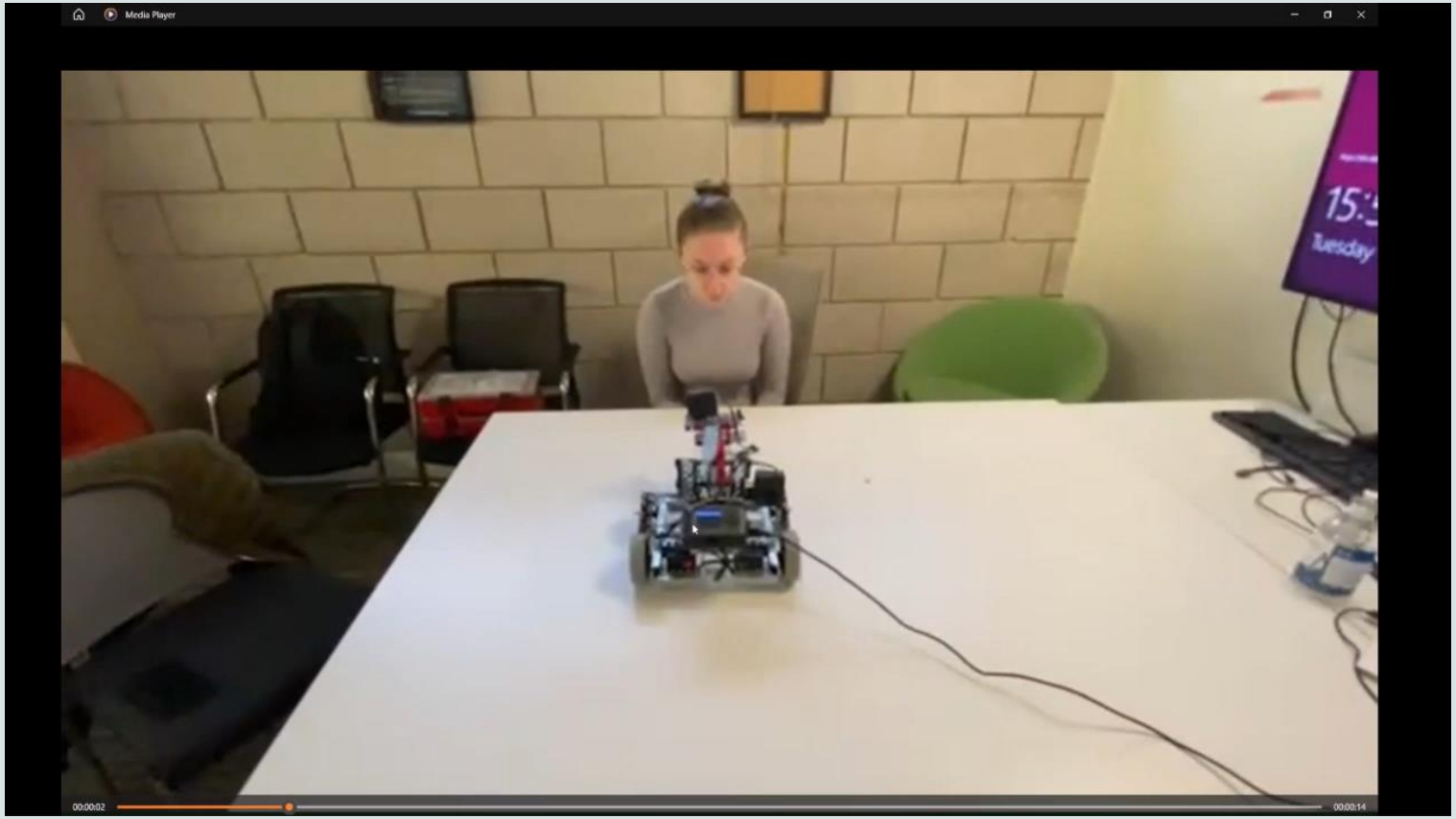
First video – Basic Function



Second Video More Extreme case



Third video – Boundary Test



Thank You For Watching