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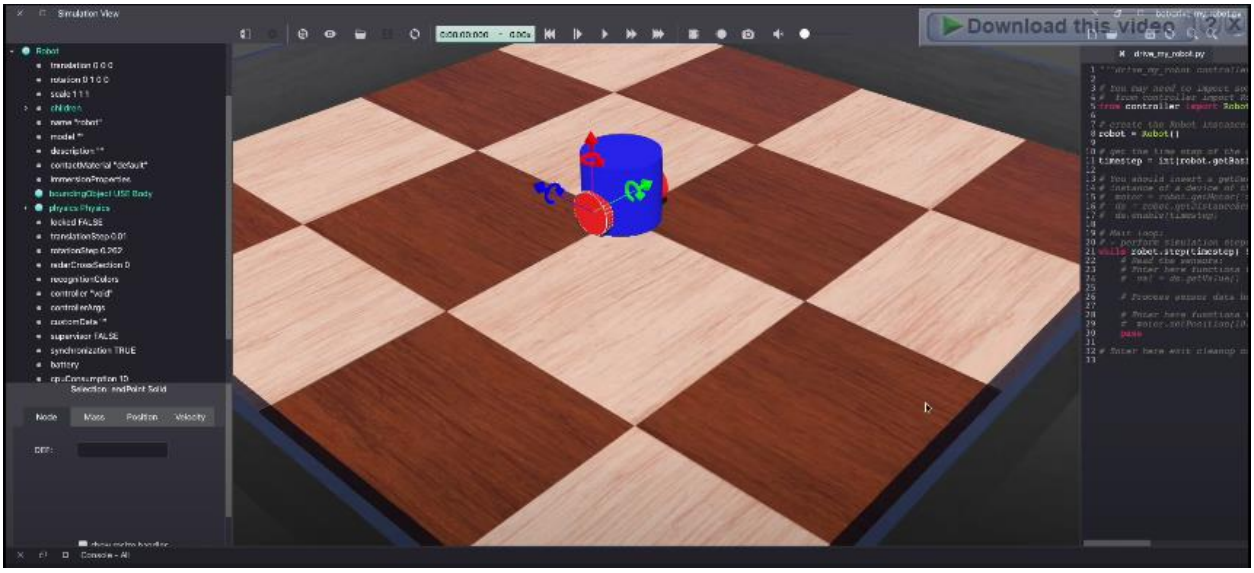
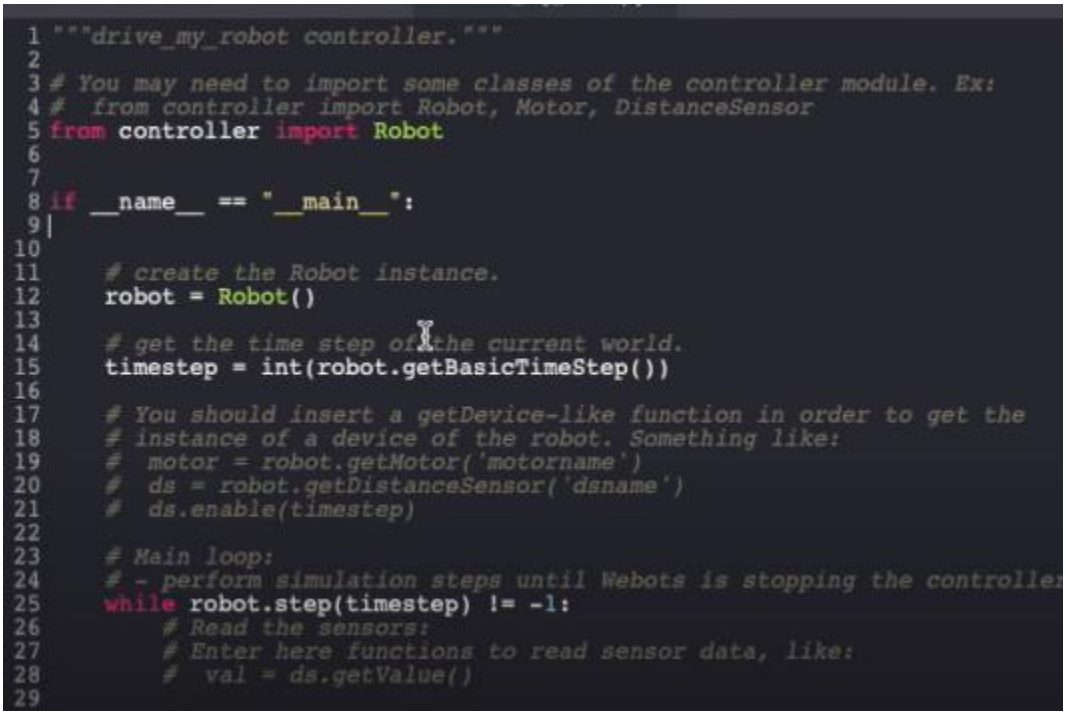
TugasLecture 10 Robotics



Membuat controller di Weboots

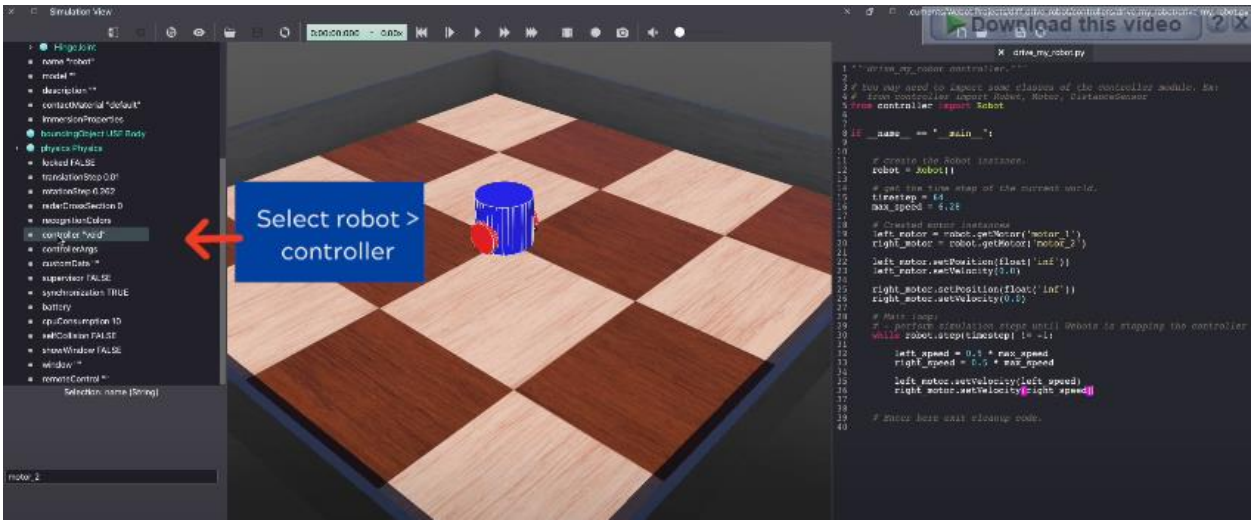


```
"""drive_my_robot controller."""

# You may need to import some classes of the controller module. Ex:
#  from controller import Robot, Motor, DistanceSensor
from controller import Robot


if __name__ == "__main__":

    # create the Robot instance.
    robot = Robot()

    # get the time step of the current world.
    timestep = int(robot.getBasicTimeStep())

    # You should insert a getDevice-like function in order to get the
    # instance of a device of the robot. Something like:
    #  motor = robot.getMotor('motorname')
    #  ds = robot.getDistanceSensor('dsname')
    #  ds.enable(timestep)

    # Main loop:
    # - perform simulation steps until Webots is stopping the controller
    while robot.step(timestep) != -1:
        # Read the sensors:
        # Enter here functions to read sensor data, like:
        #  val = ds.getValue()
```

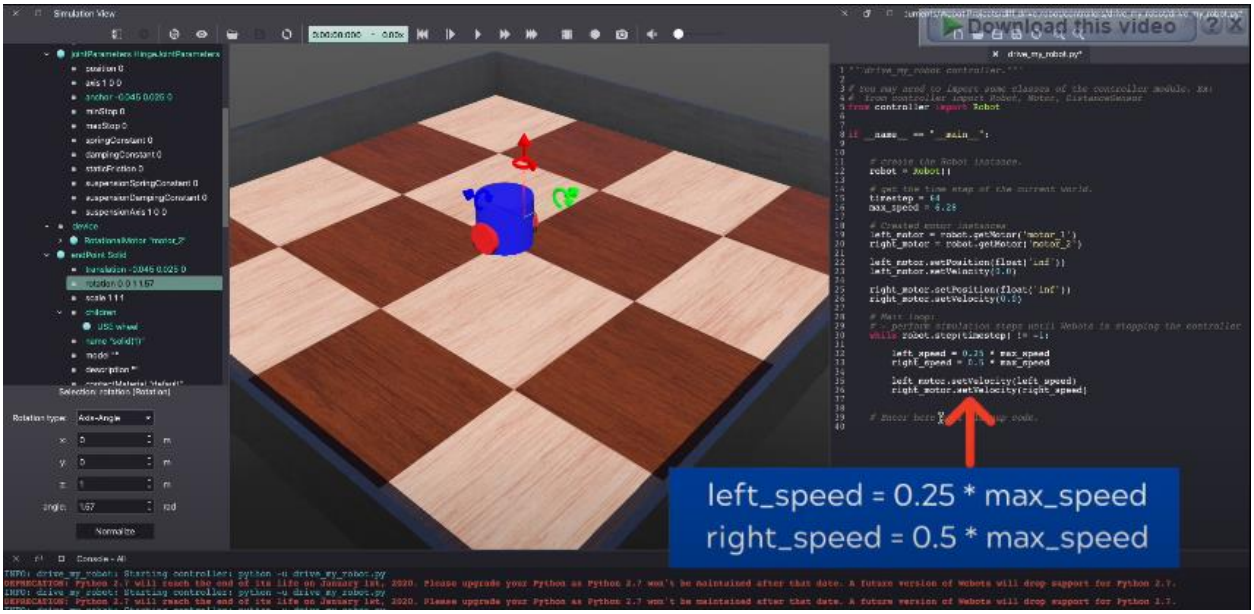
Weboots Controller di python

```python
from controller import Robot

if __name__ == "__main__":

    # create the Robot instance.
    robot = Robot()

    # get the time step of the current world.
    timestep = 64

    # You should insert a getDevice-like function in order to get the
    # instance of a device of the robot. Something like:
    #  motor = robot.getMotor('motorname')
    #  ds = robot.getDistanceSensor('dsname')
    #  ds.enable(timestep)

    left_motor = robot.getMotor('motor_1')
    right_motor = robot.getMotor('motor_2')

    left_motor.setPosition(float('inf'))
    left_motor.setVelocity(0.0)

    left_motor.setPosition(float('inf'))
    left_motor.setVelocity(0.0)

    # Main loop:
    # - perform simulation steps until Webots is stopping the controll
    while robot.step(timestep) != -1:
        # Read the sensors:
        # Enter here functions to read sensor data, like:
        #  val = ds.getValue()

        # Process sensor data here.
```

Membuat control motor di weboots



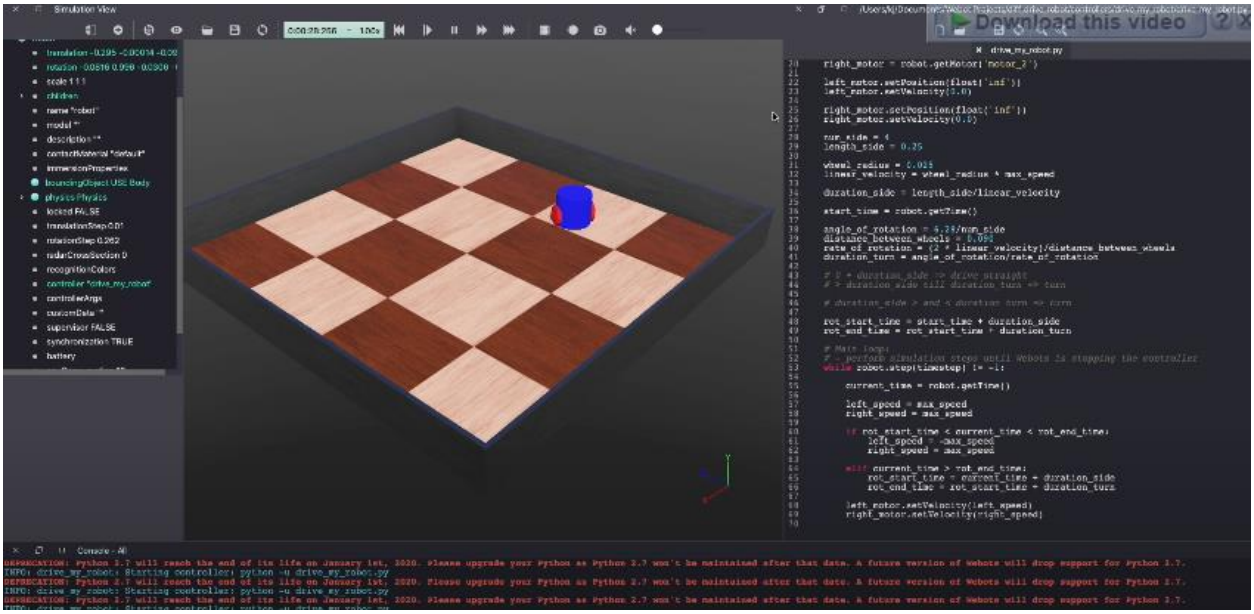
MenjalankanLurus



Menjalakan Robot

```
# You may need to import some classes of the controller
#  from controller import Robot, Motor, DistanceSensor
from controller import Robot


if __name__ == "__main__":


    # create the Robot instance.
    robot = Robot()

    # get the time step of the current world.
    timestep = 64
    max_speed = 6.28

    # Created motor instances
    left_motor = robot.getMotor('motor_1')
    right_motor = robot.getMotor('motor_2')

    left_motor.setPosition(float('inf'))
    left_motor.setVelocity(0.0)

    right_motor.setPosition(float('inf'))
    right_motor.setVelocity(0.0)

    num_side = 4
    length_side =


    # Main loop:
    # - perform simulation steps until Webots is stoppin
    while robot.step(timestep) != -1:

        current_time = robot.getTime()

        left_speed = max_speed
        right_speed = max_speed
```

Robot berjalan pada polygon



Perbandingan antara open loops dan closed loops system