

Robotika dan Sistem Cerdas

Webot Tutorial ‘The Supervisor’

Diajukan untuk memenuhi UAS pada mata kuliah
Robotika dan Sistem Cerdas

Oleh :

Muhammad Syaiful Rahman (1103192198) (TK-43-GAB)



**Telkom
University**

PROGRAM STUDI S1 TEKNIK KOMPUTER

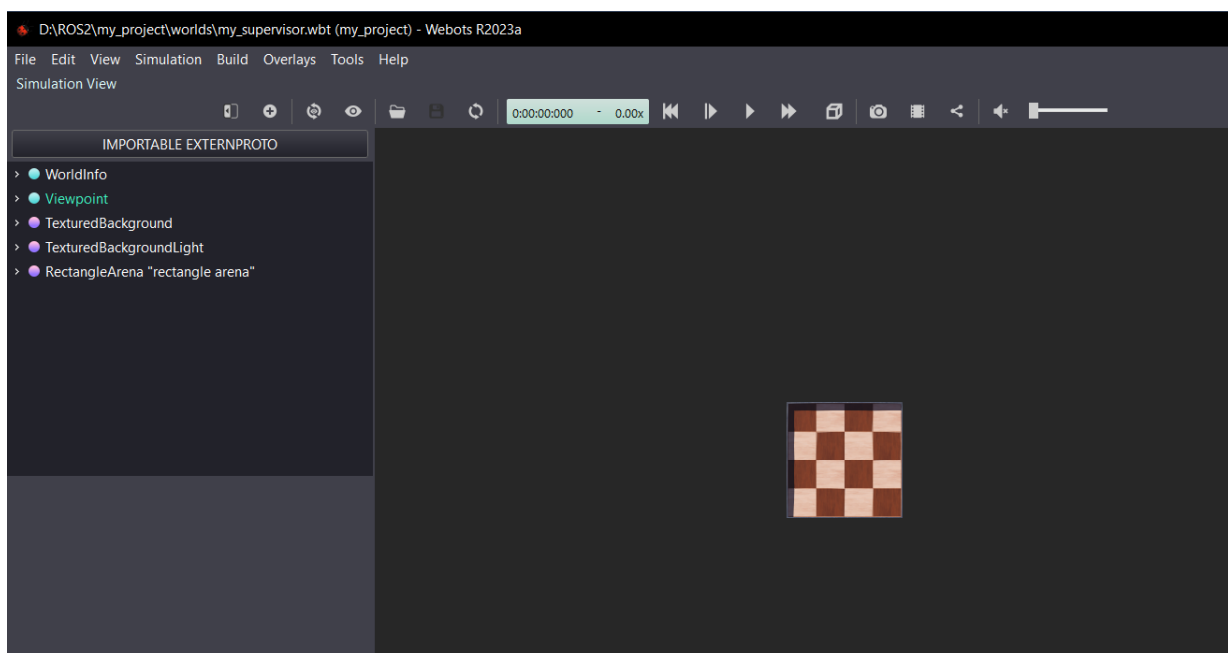
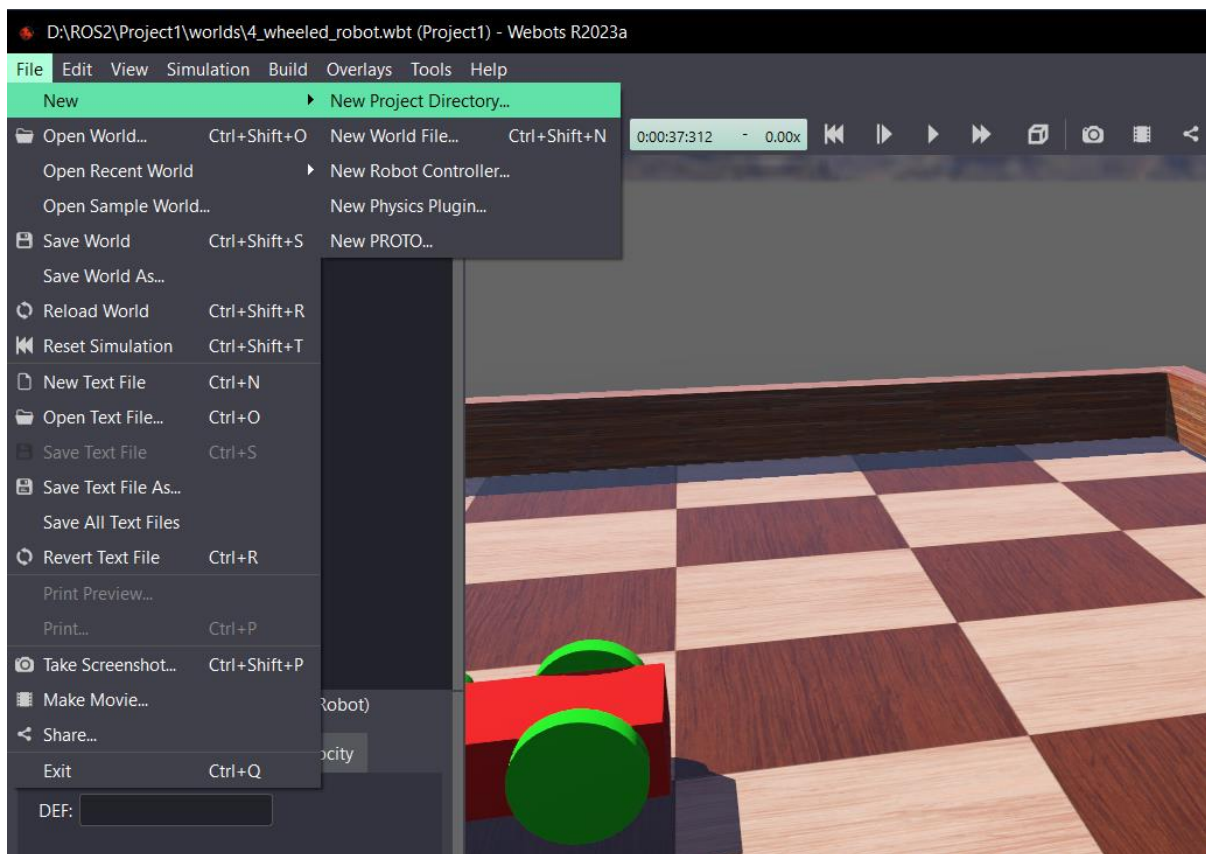
FAKULTAS TEKNIK ELEKTRO

UNIVERSITAS TELKOM

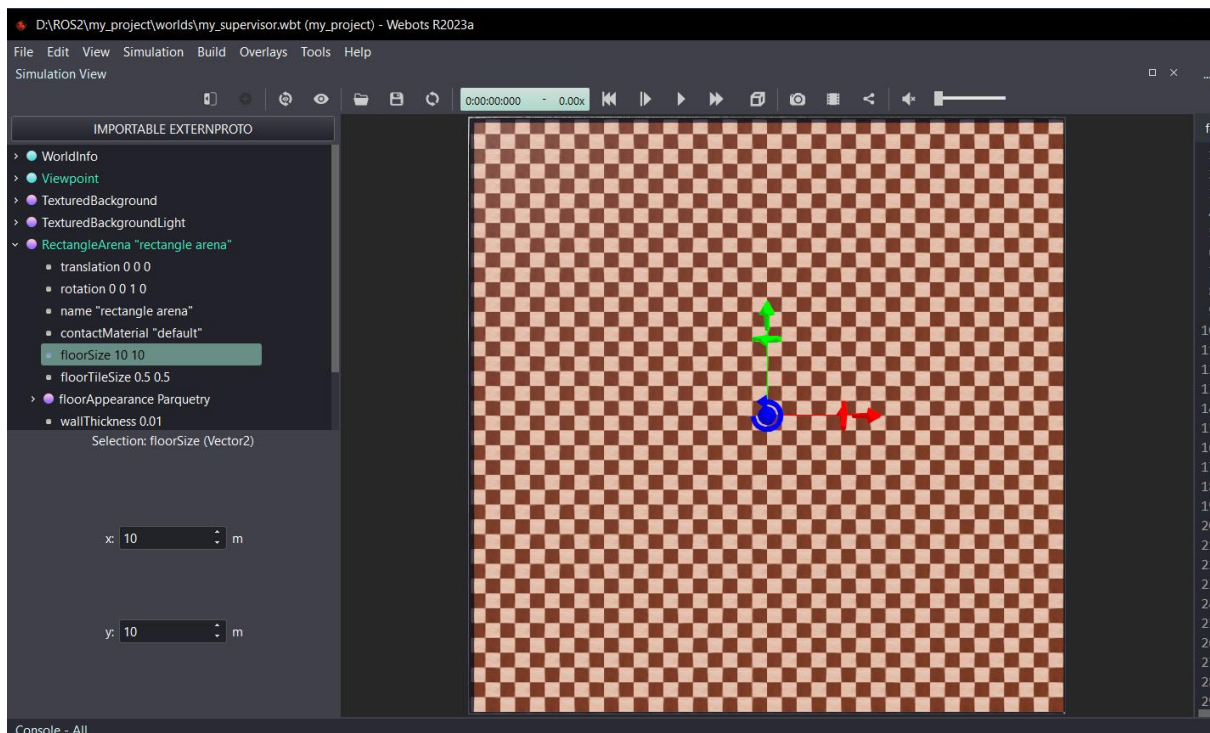
BANDUNG

2023

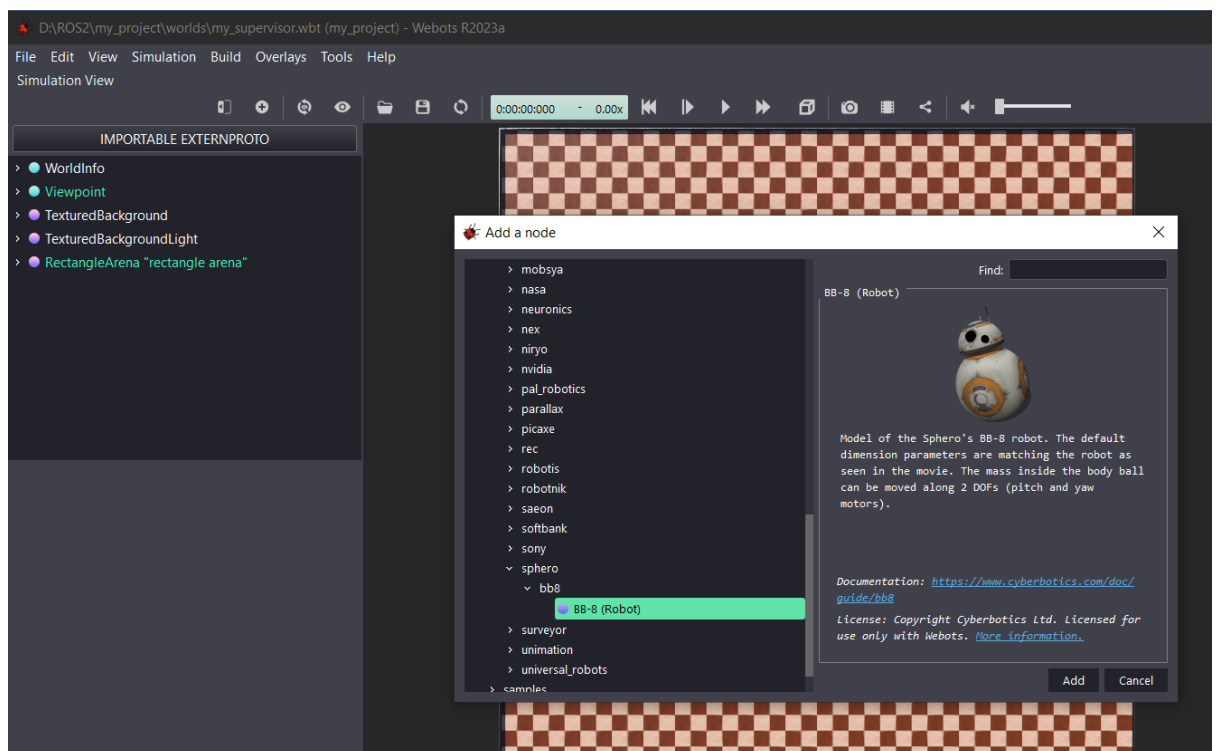
1) Pertama kita buat new project file dengan nama my_supervisor



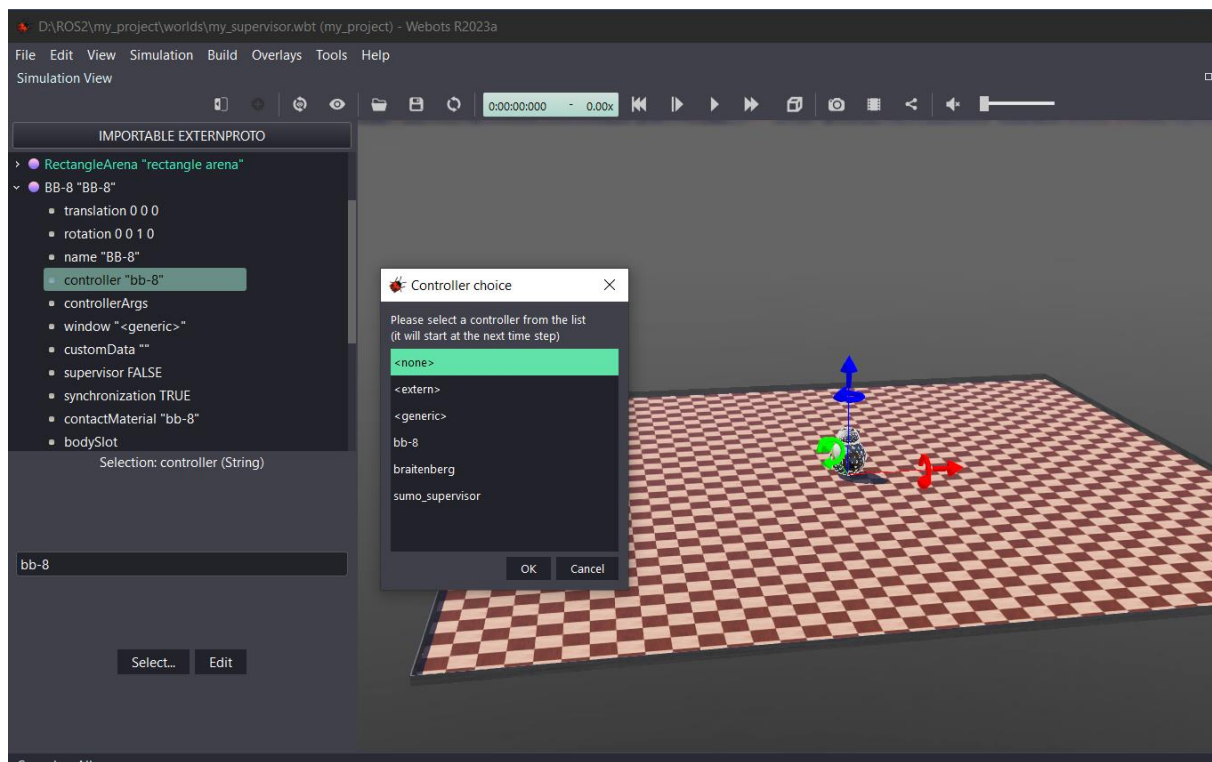
2) Ubah floor size menjadi 10 x 10 m



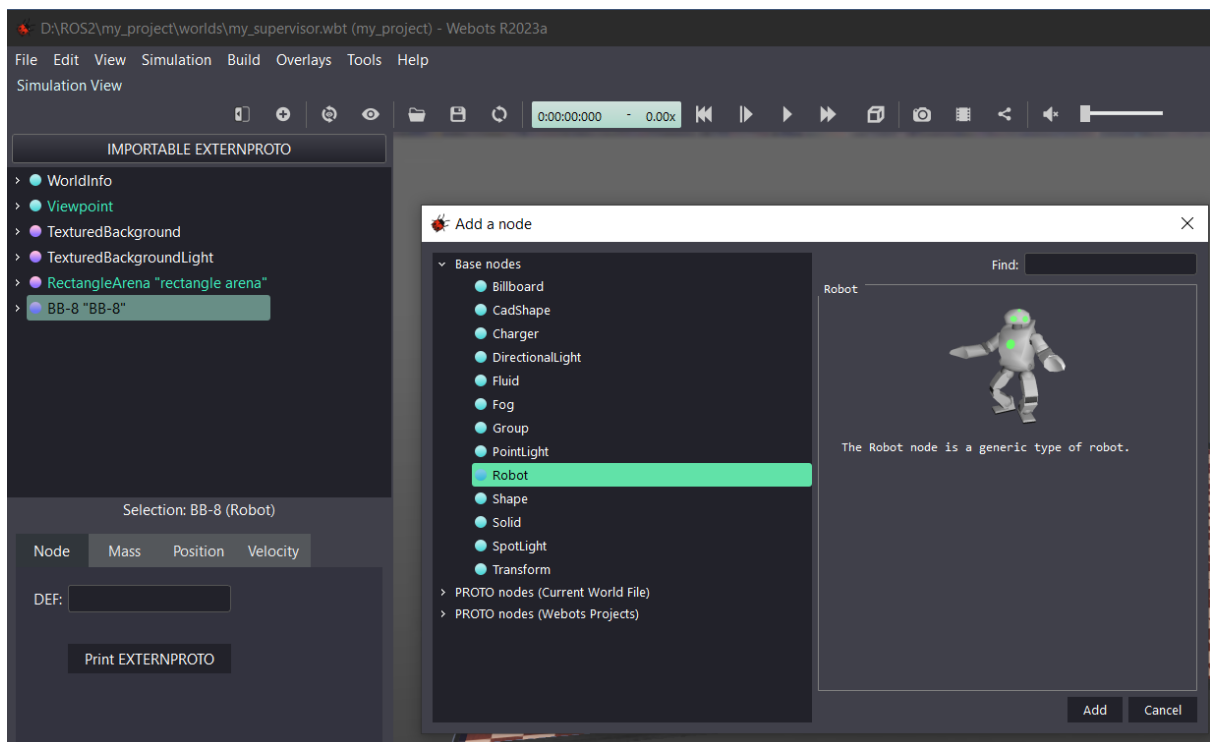
3) Add robot dengan ikuti perintah berikut → (Add button and navigate to: PROTO nodes (Webots projects) / robots / sphero / bb8)



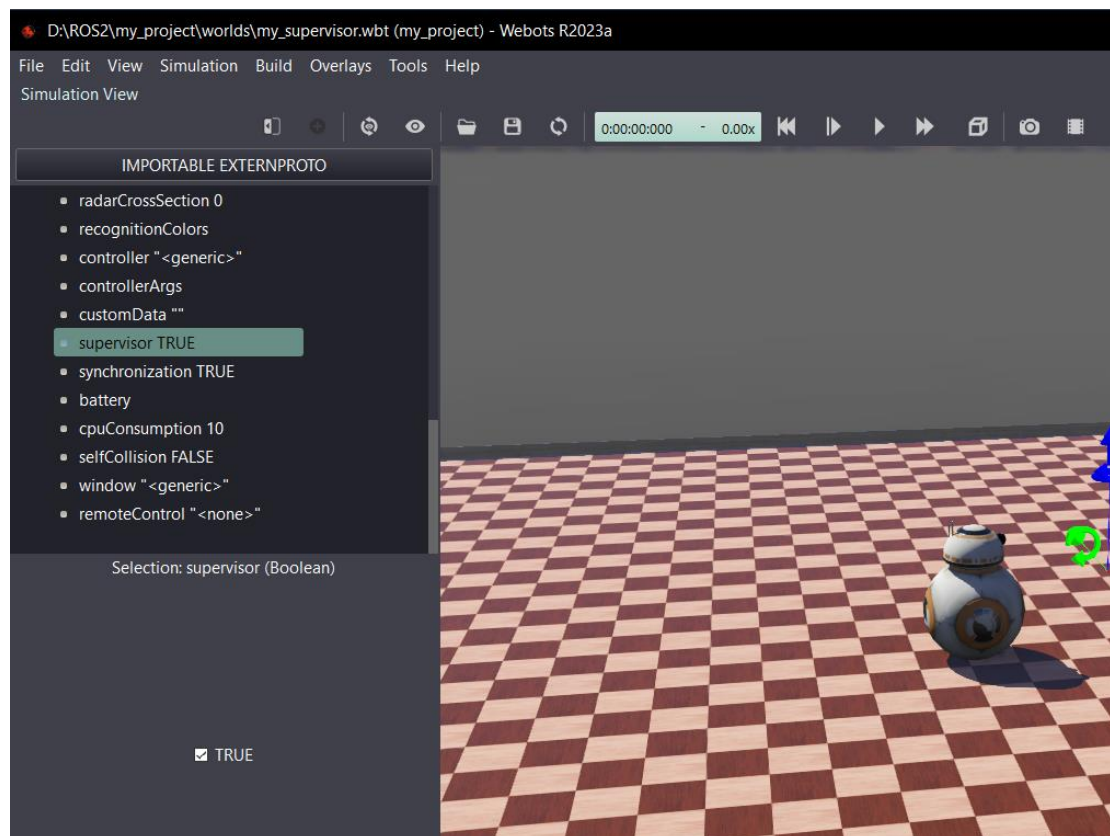
4) Ubah opsi controller menjadi 'none'



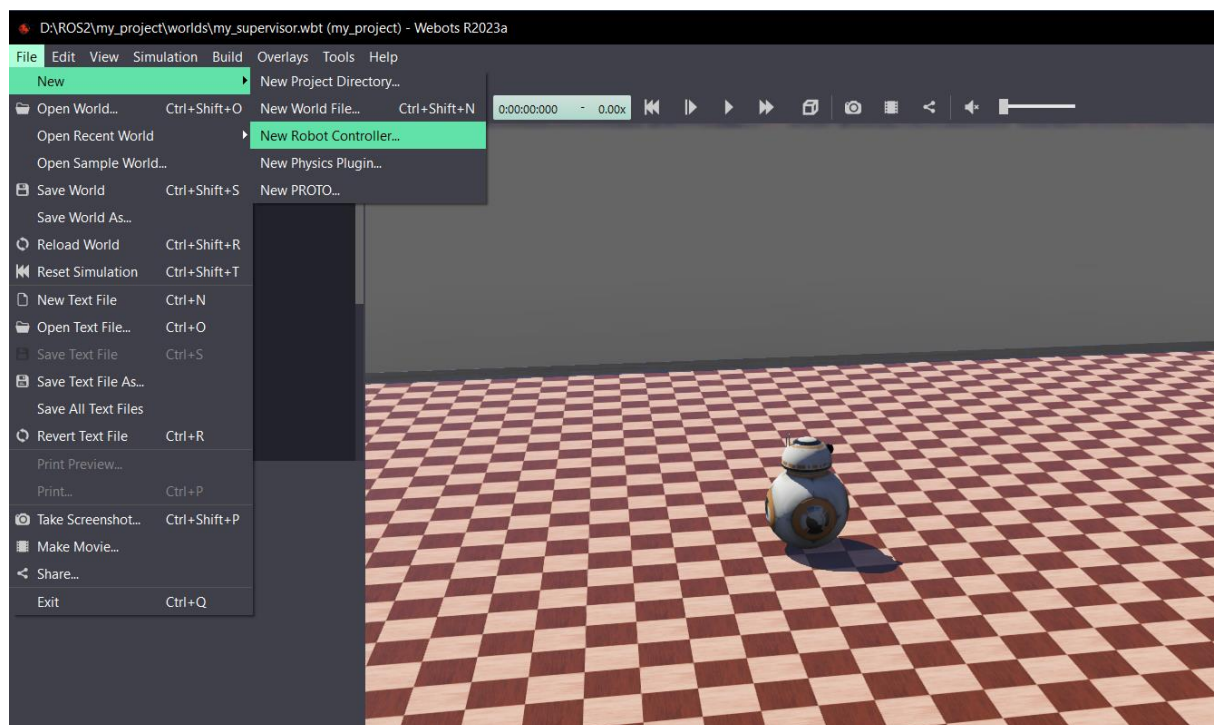
5) Add robot dan beri nama 'supervisor'



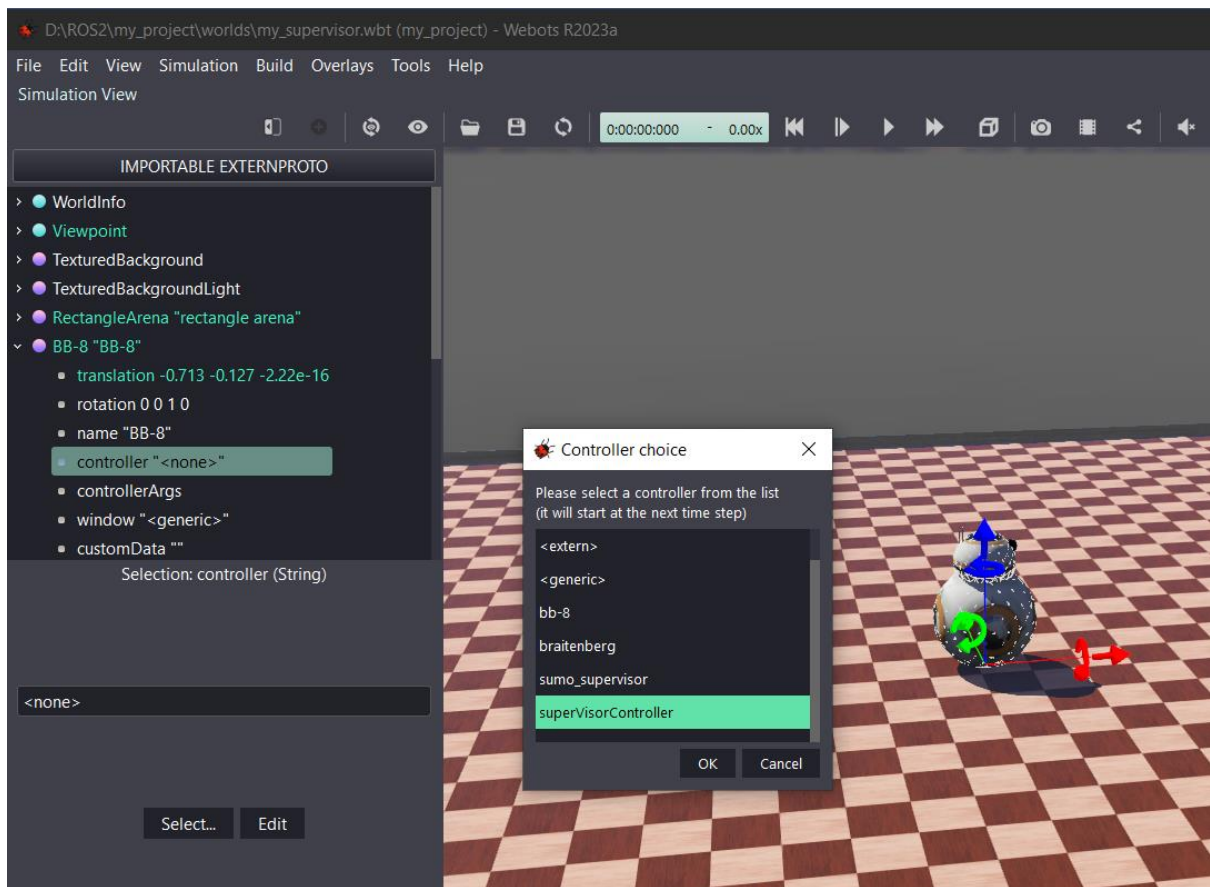
6) Ubah nilai supervisor pada robot menjadi TRUE



7) Buat controller baru dan beri nama superVisorController



8) Ubah controller pada robot



9) Salin code dari webot documentation ke dalam Webot

Putting Everything Together

Here you can find the complete code of the controller.

```
C  C++  Python  Java  MATLAB

from controller import Supervisor

TIME_STEP = 32

robot = Supervisor() # create Supervisor instance

# [CODE PLACEHOLDER 1]
bb8_node = robot.getFromDef('BB-8')
translation_field = bb8_node.getField('translation')

root_node = robot.getRoot()
children_field = root_node.getField('children')

children_field.importMFNodeFromString(-1, 'DEF BALL Ball { translation 0 1 1 }')
ball_node = robot.getFromDef('BALL')
color_field = ball_node.getField('color')

i = 0
while robot.step(TIME_STEP) != -1:
    # [CODE PLACEHOLDER 2]
    if (i % 8) == 0:
```

10) Save code (CTRL+S) dan run simulation

