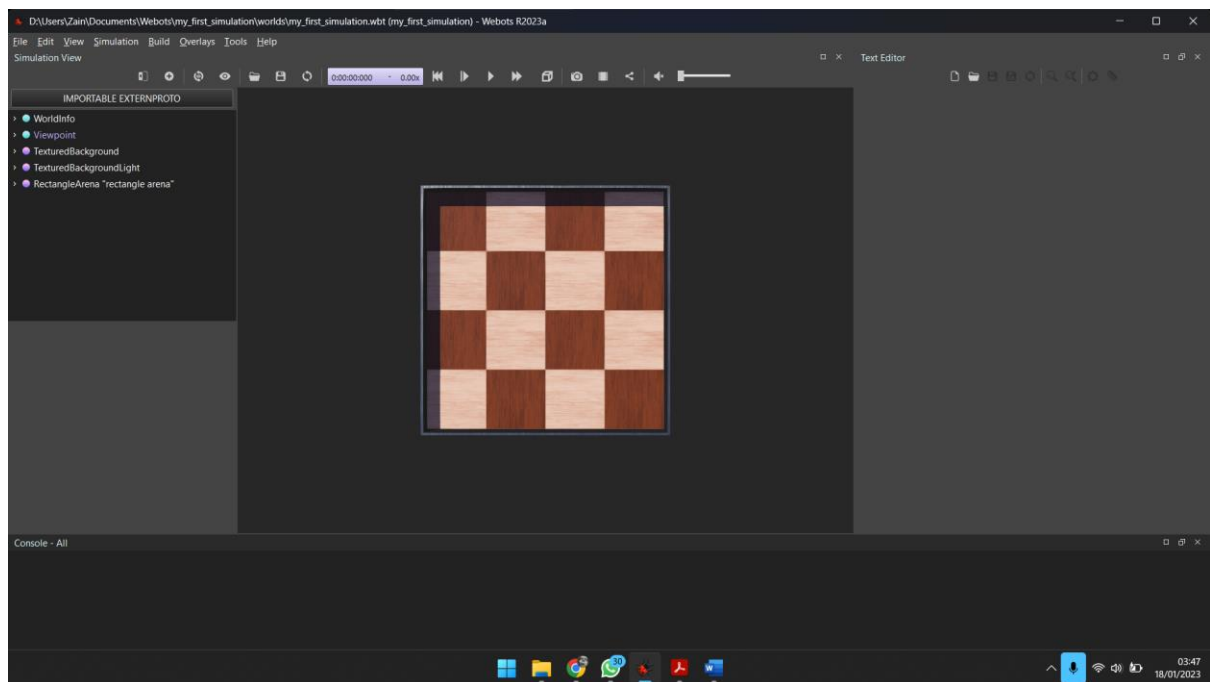Nama : Muhammad Fakhri Zain Rifqi

NIM   : 1103194017
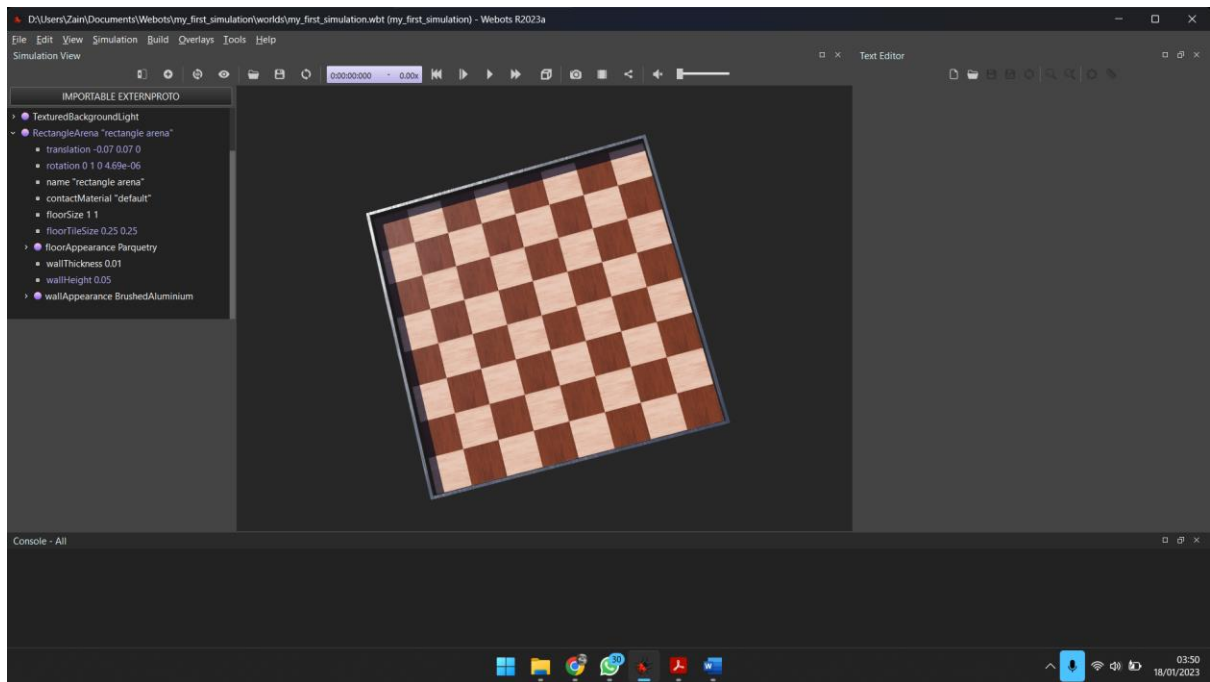
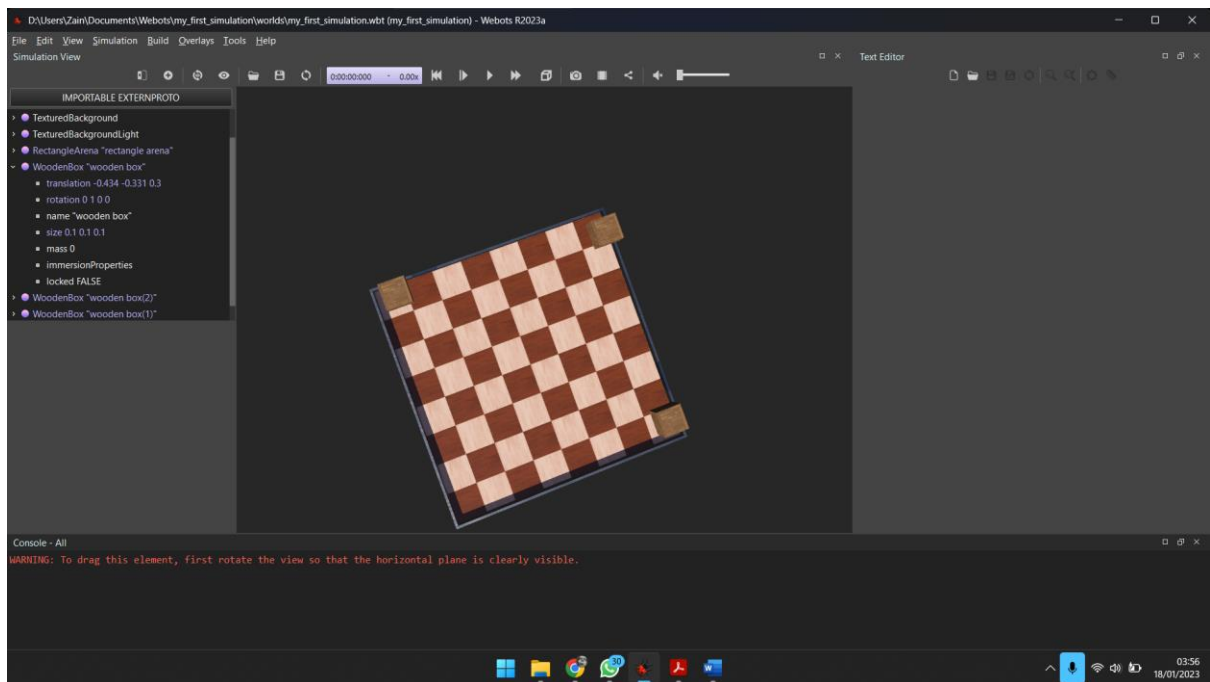## WEBOTS TUTORIAL

1. Your First Simulation in Webots
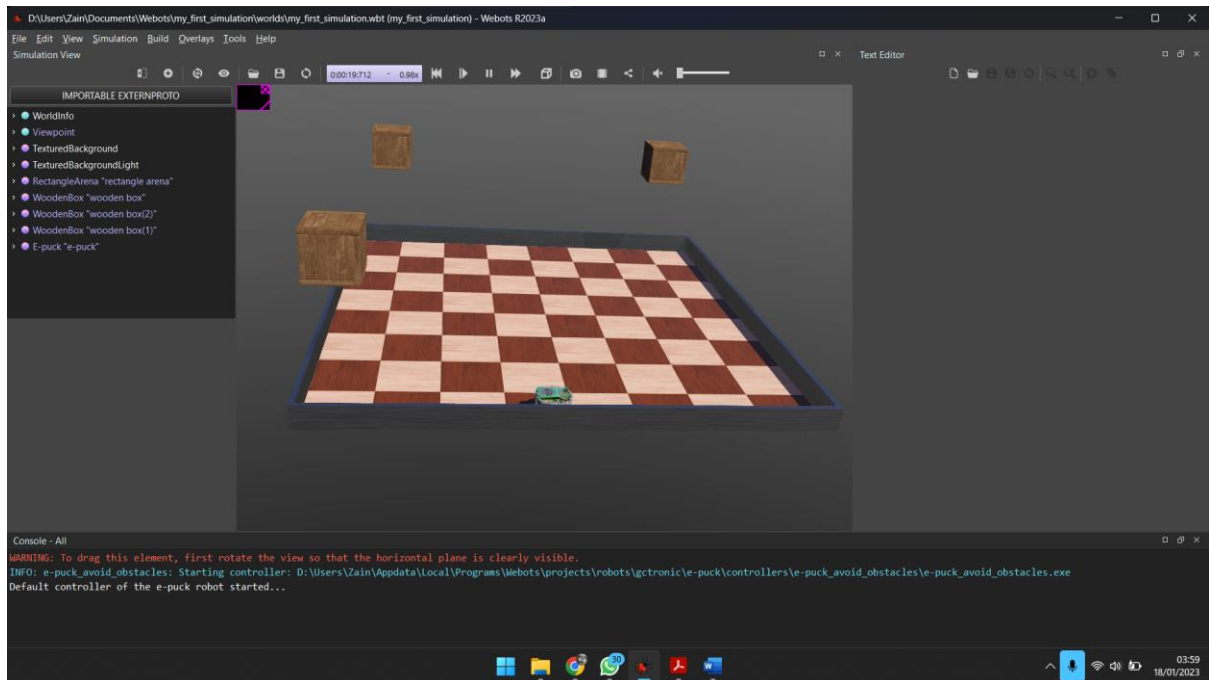
a. Create a New World

Gambar 1 Hands-on 2

Gambar 2 Hands-on 3
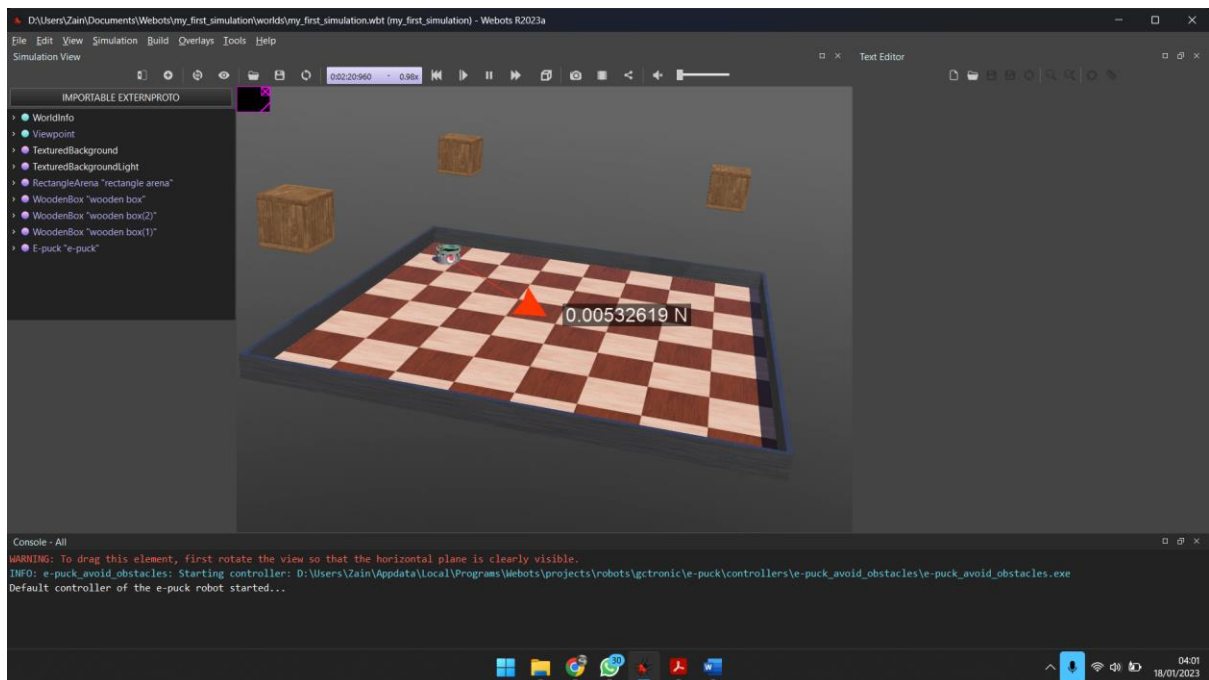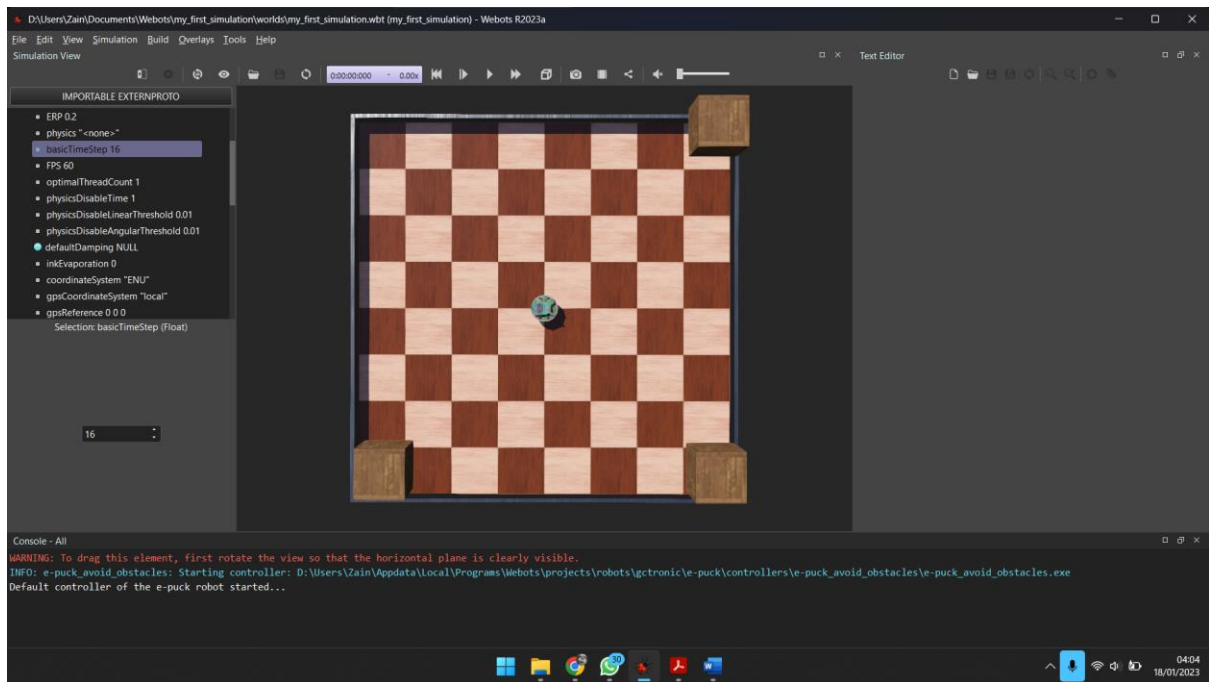

Gambar 3 Hands-on 4

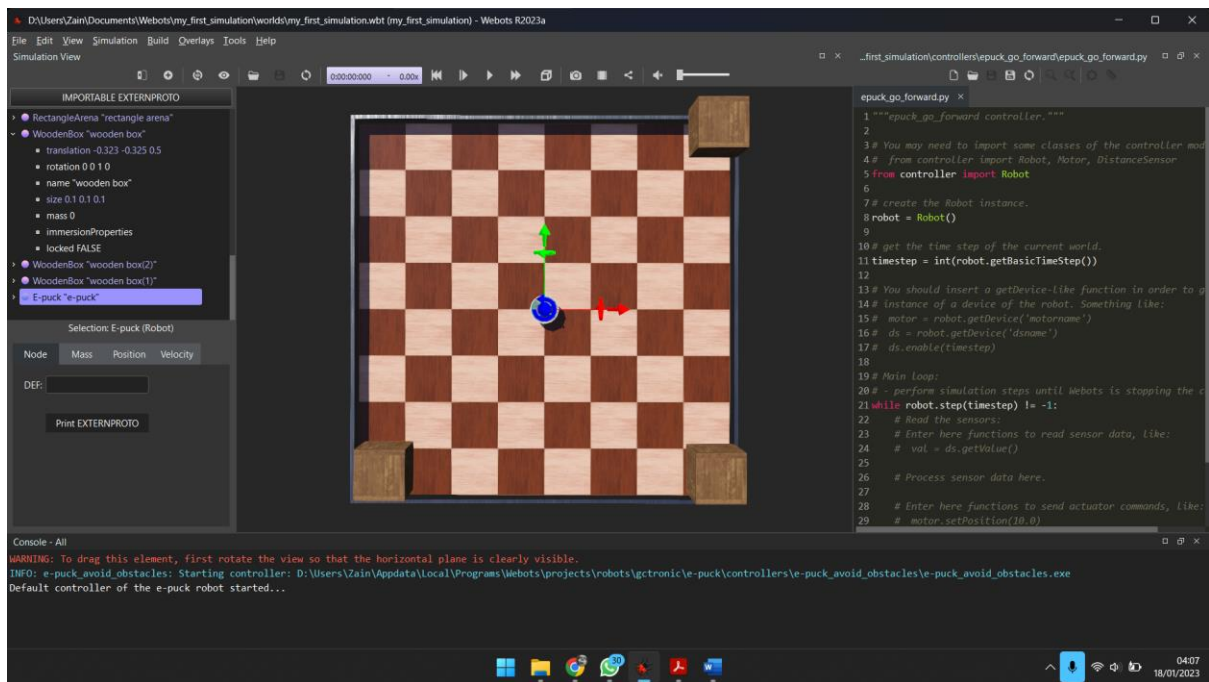b. Add an e-puck Robot

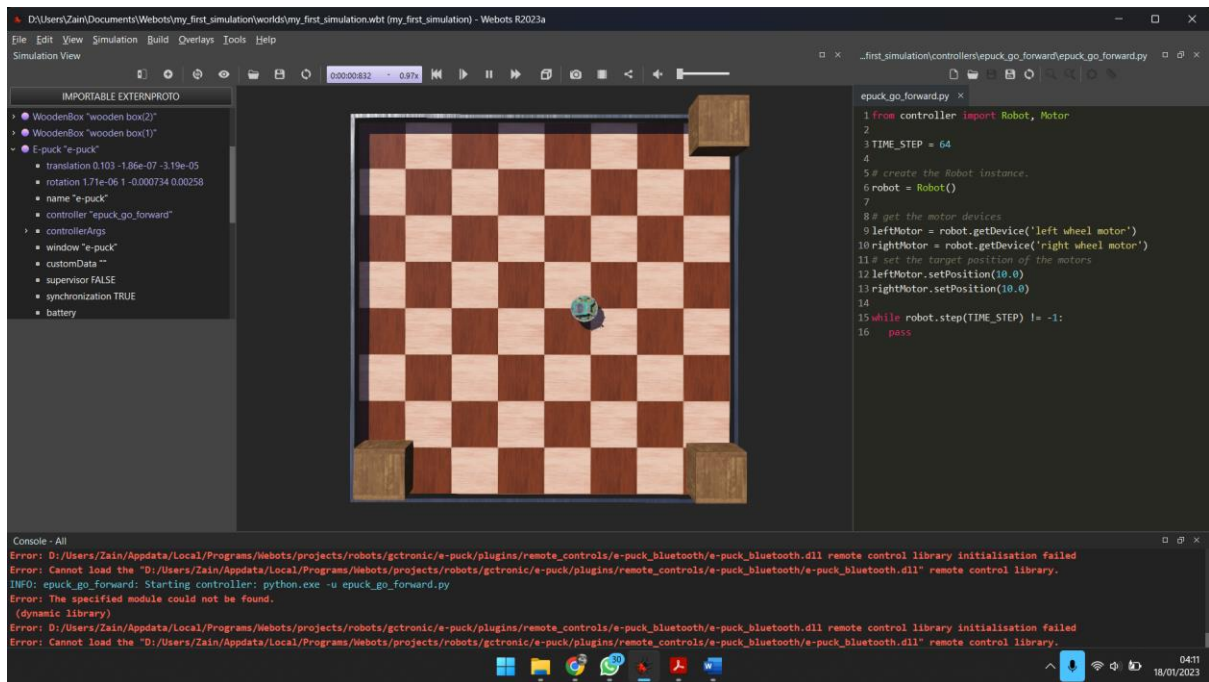Gambar 4 Hands-on 5

Gambar 5 Hands-on 6

Gambar 6 Hands-on 7

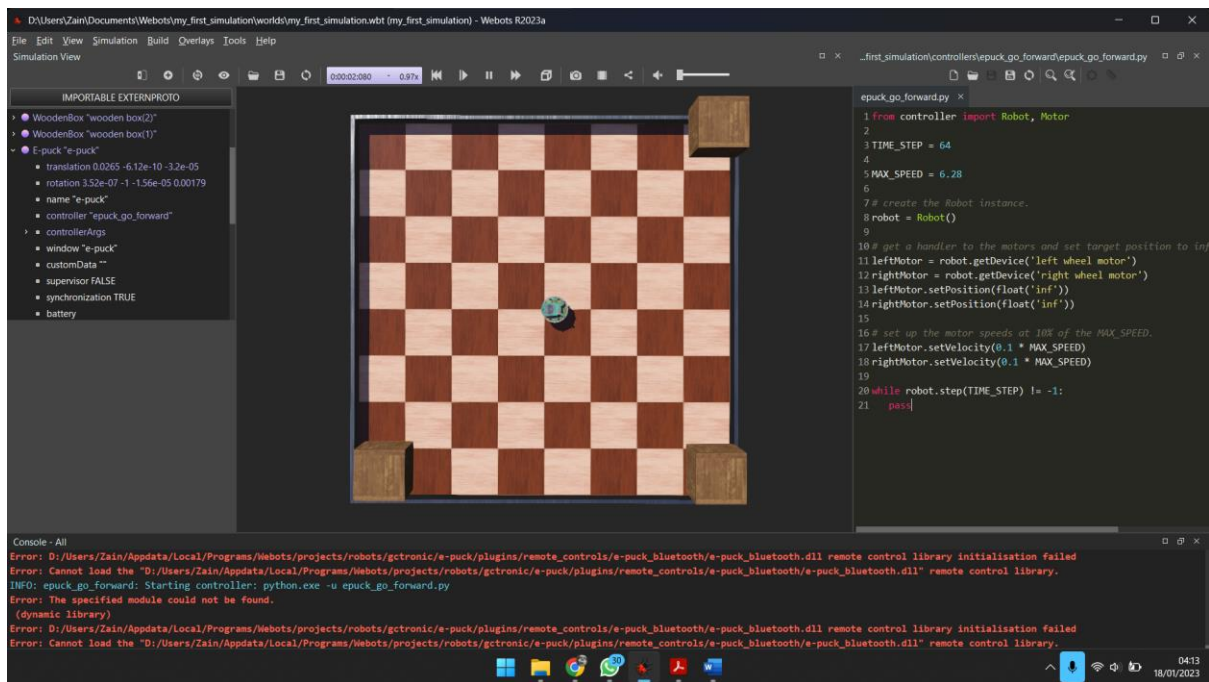   c.   Create a New Controller

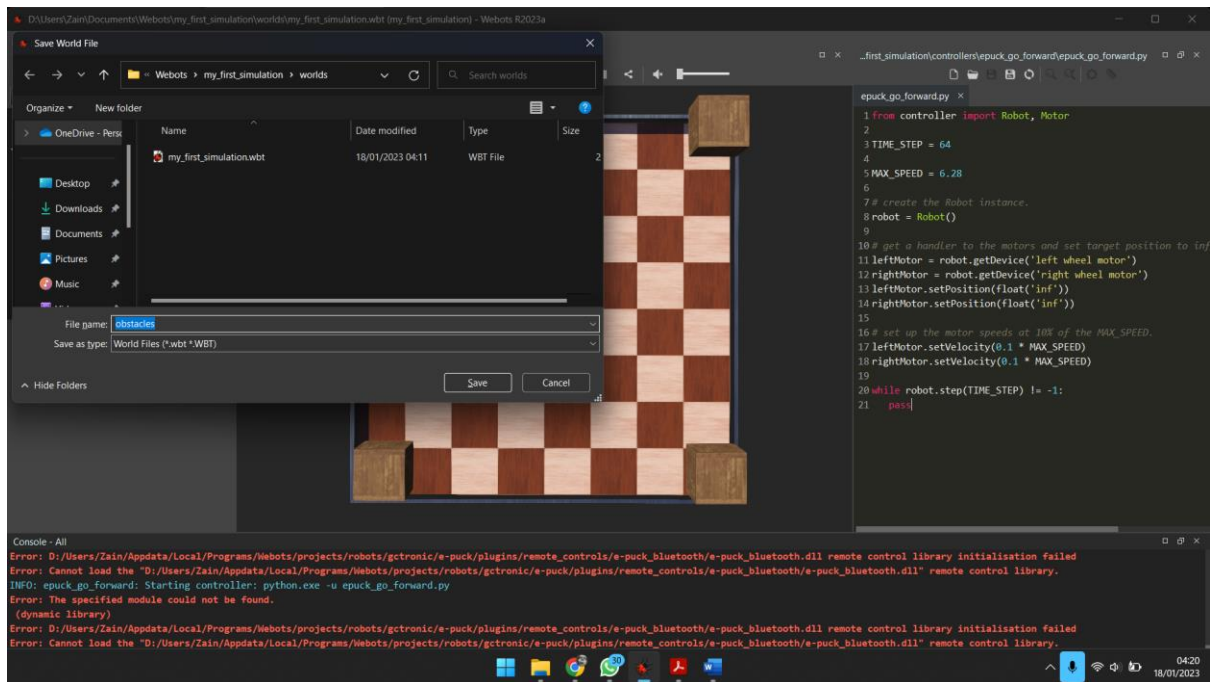

Gambar 7 Hands-on 8

Gambar 8 Hands-on 9

d. Extend the Controller to Speed Control
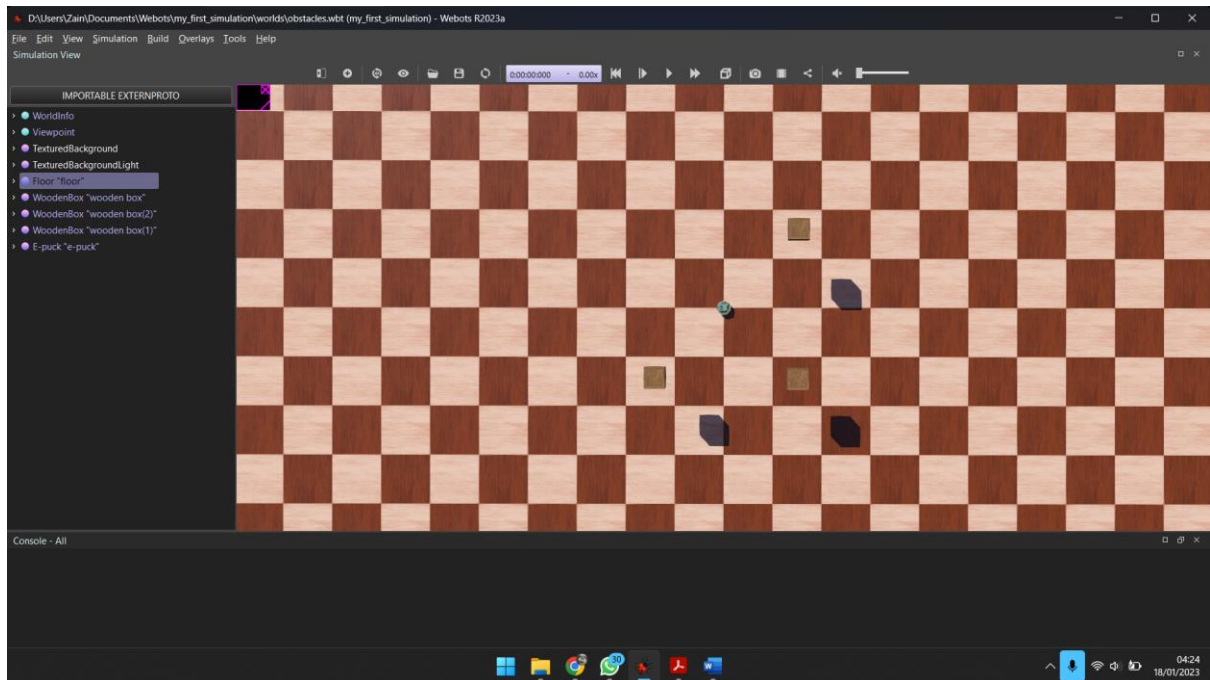

Gambar 9 Hands-on 10

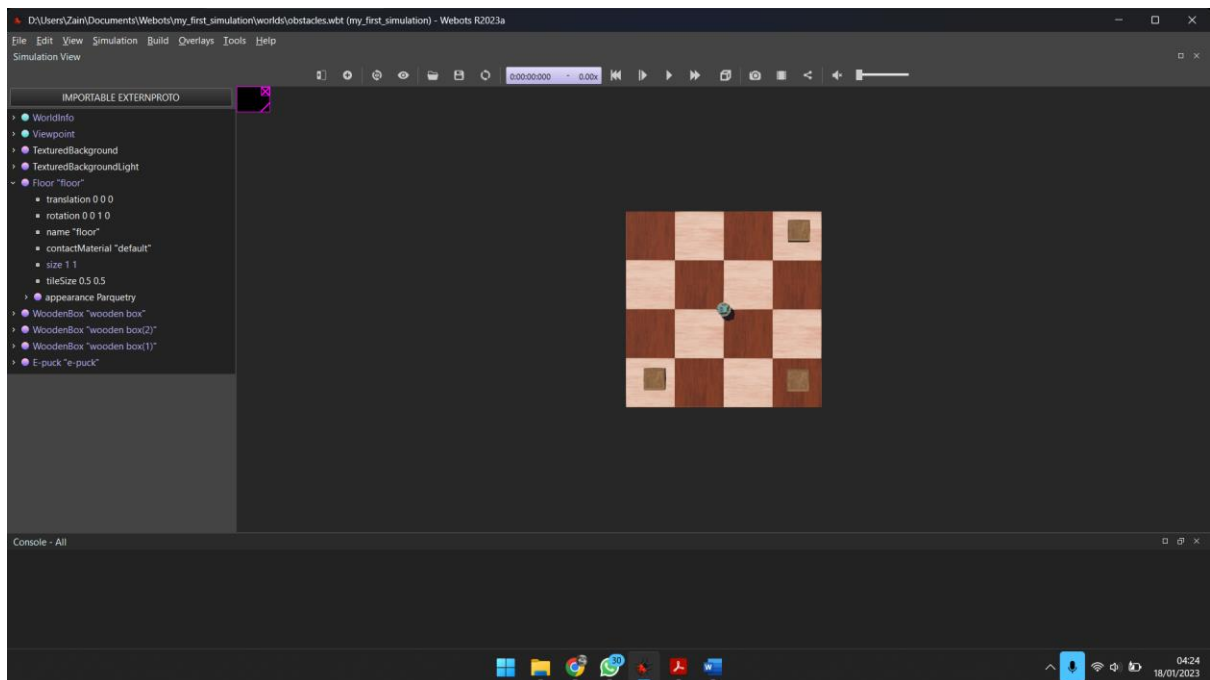# 2. Modification of the Environment

a. A New Simulation

Gambar 10 Hands-on 1
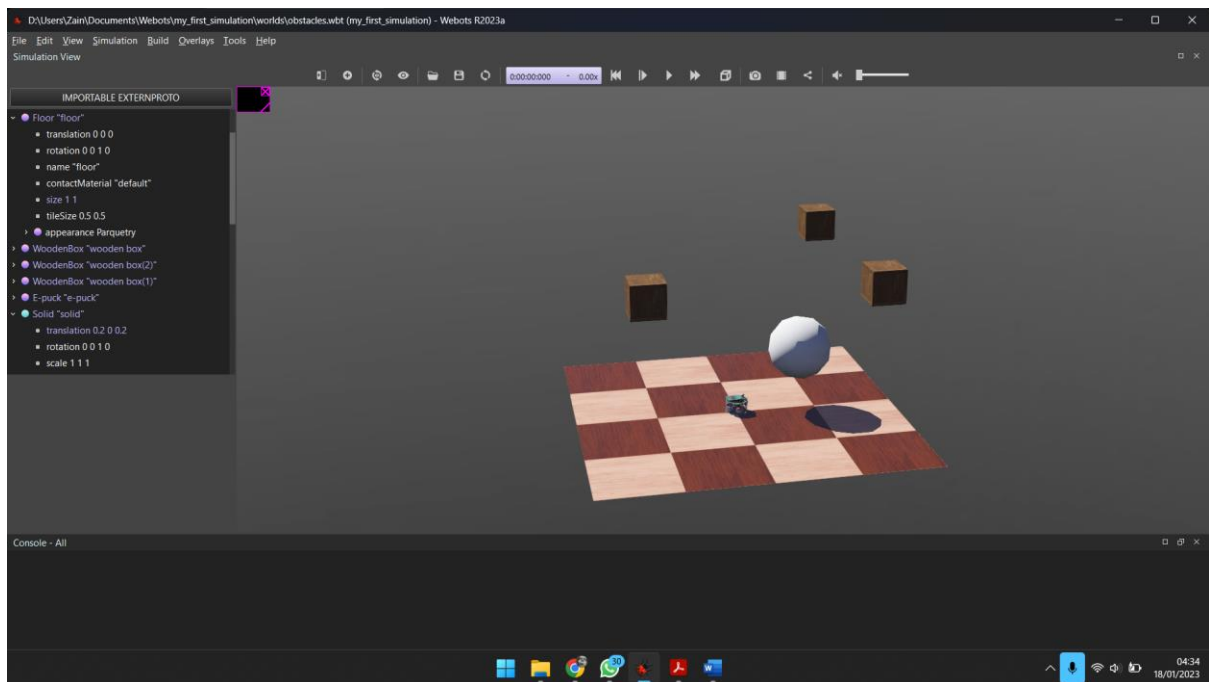
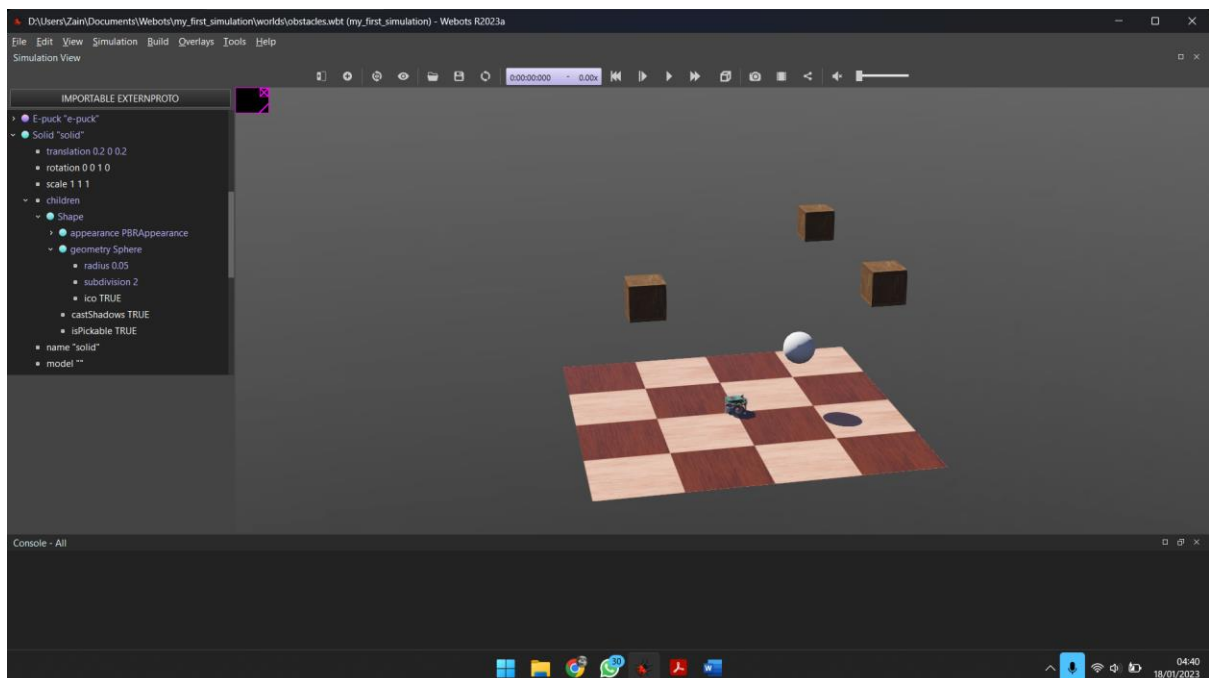b.   Modifying the Floor

Gambar 11 Hands-on 2

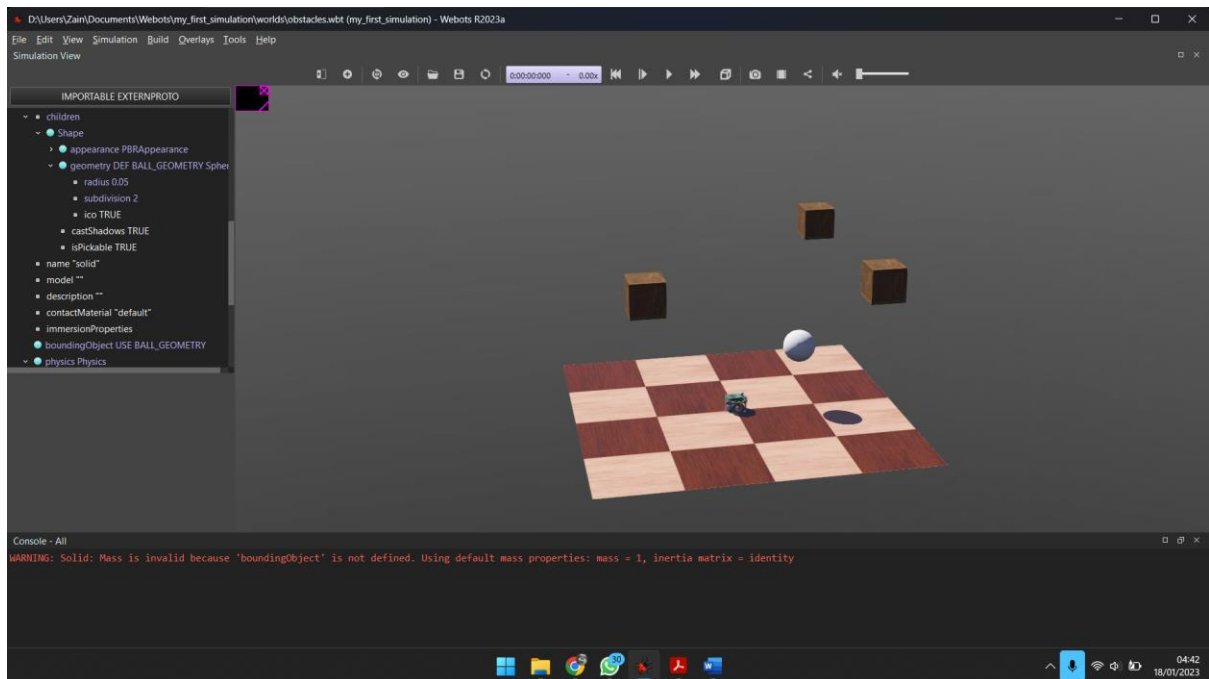Gambar 12 Hands-on 3

c. Create a Ball
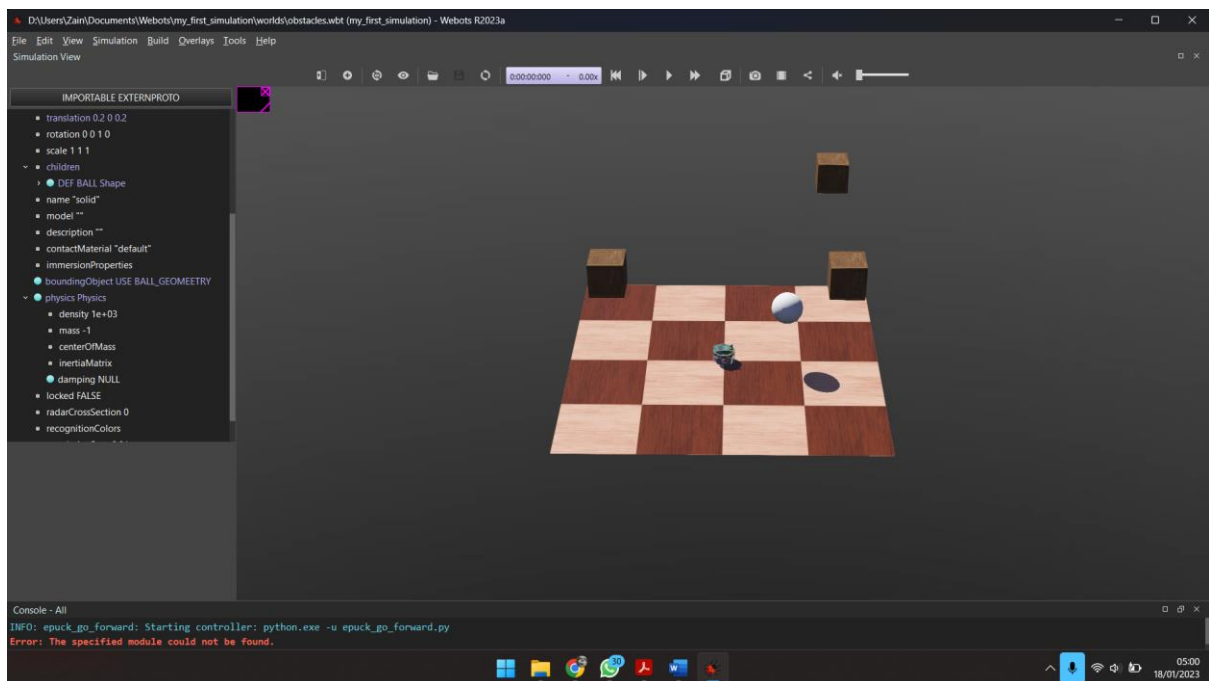

Gambar 13 Hands-on 4

d. Geometries

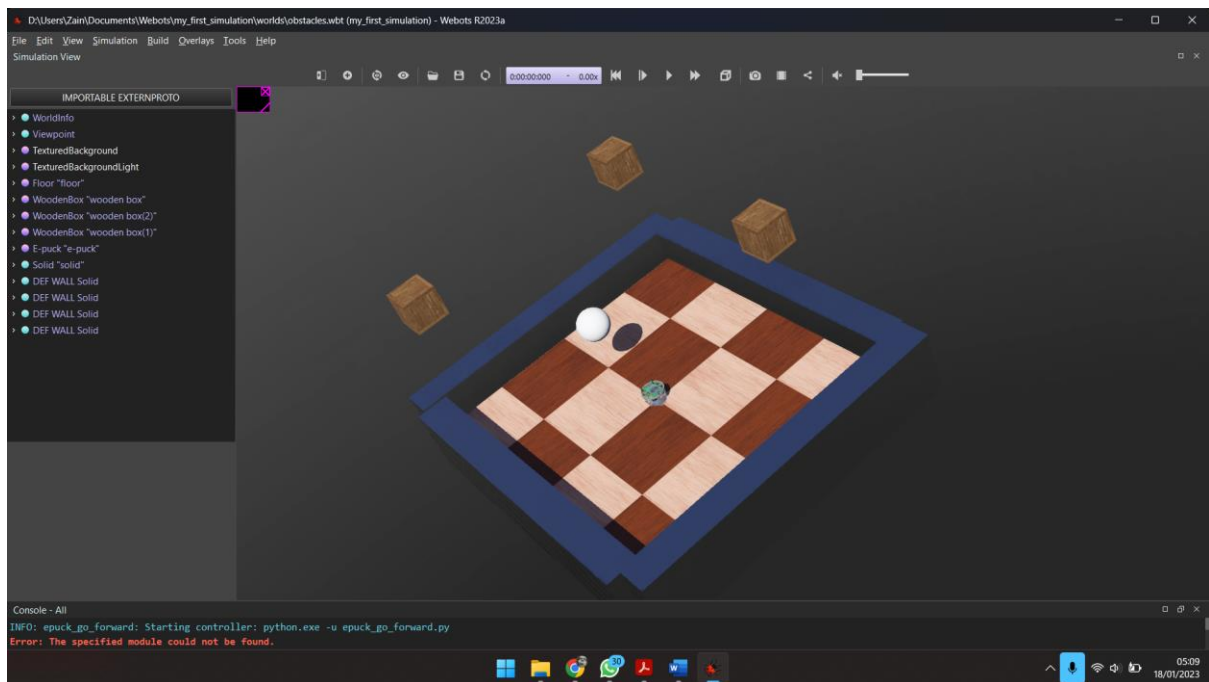Gambar 14 Hands-on 5

e. DEF-USE Mechanism

Gambar 15 Hands-on 6
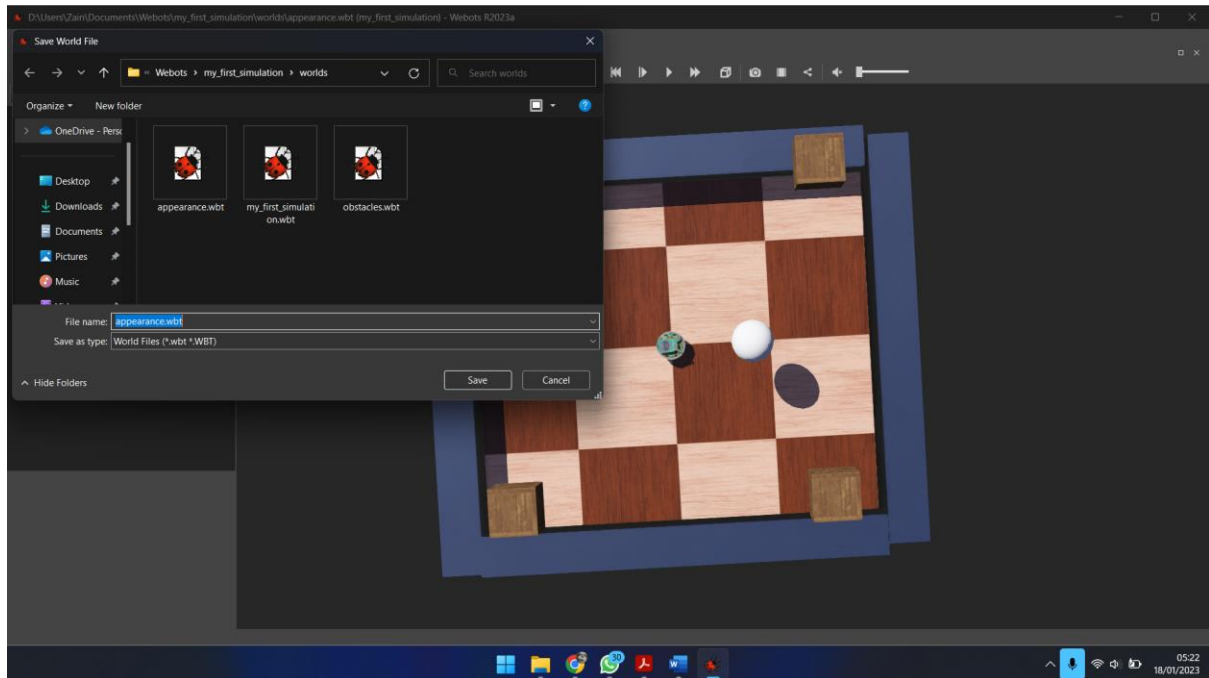

Gambar 16 Hands-on 7
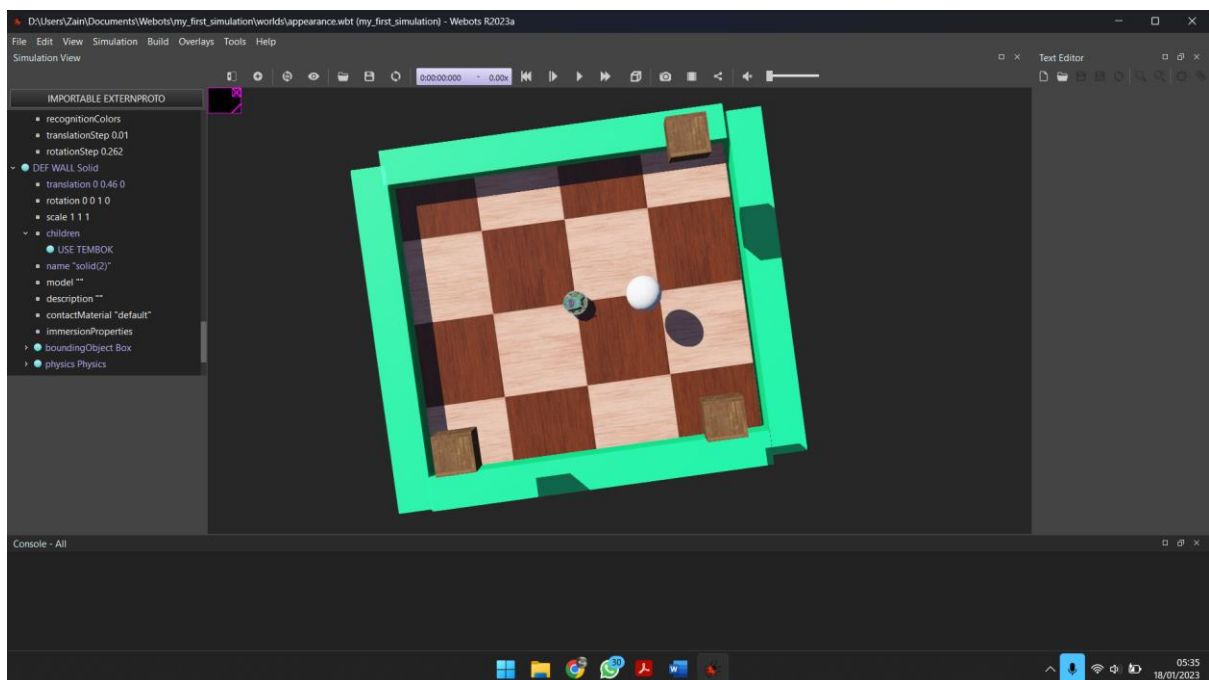
f. Add Walls

Gambar 17 Hands-on 8

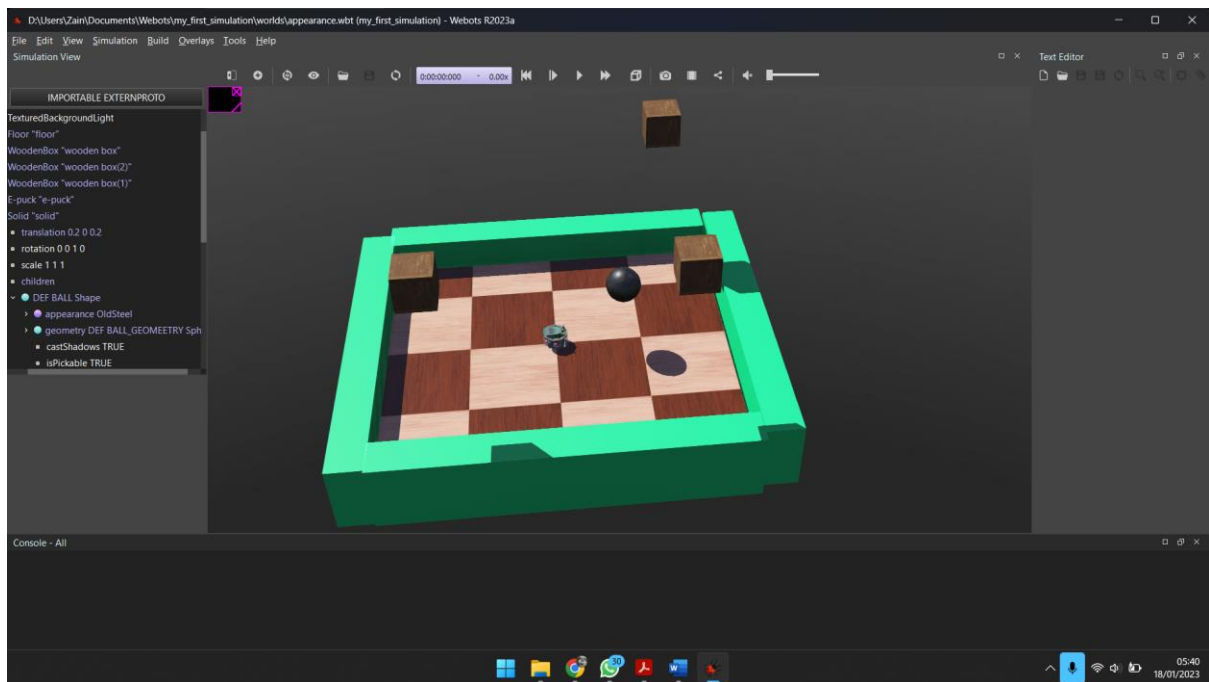# 3. Appearance

a. New Simulation

Gambar 18 Hands-on 1
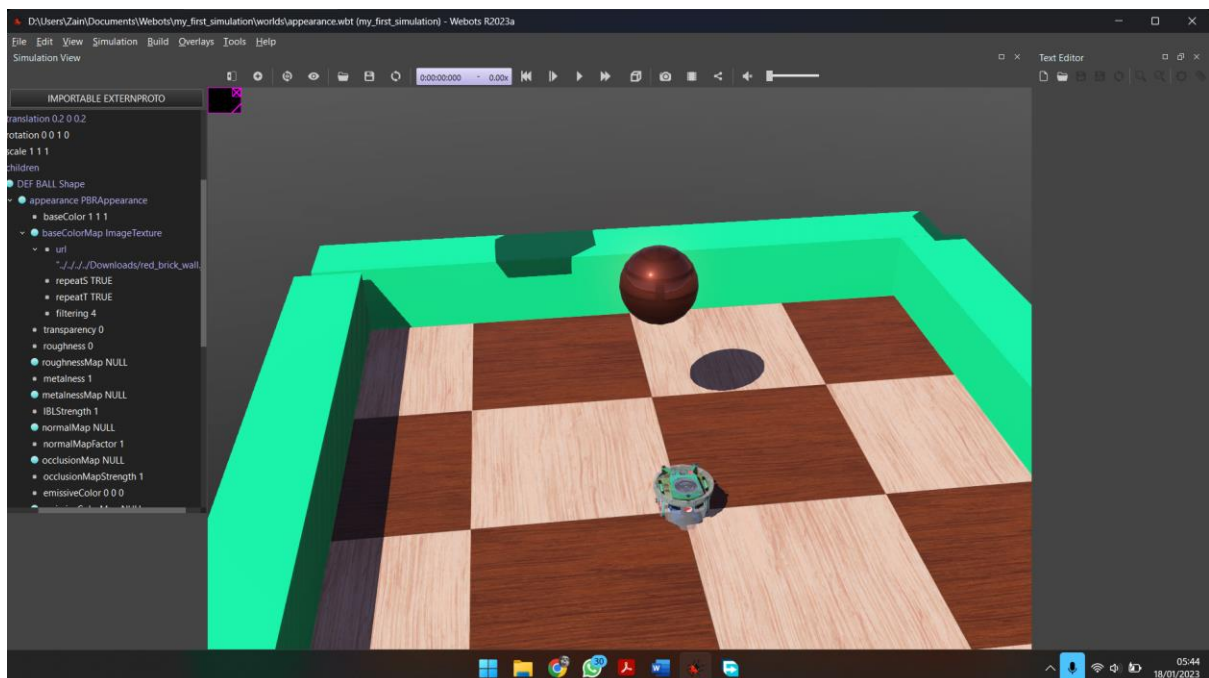
b. Modify the Appearance of the Walls

Gambar 19 Hands-on 2

c. Add an Existing Appearance to the Ball
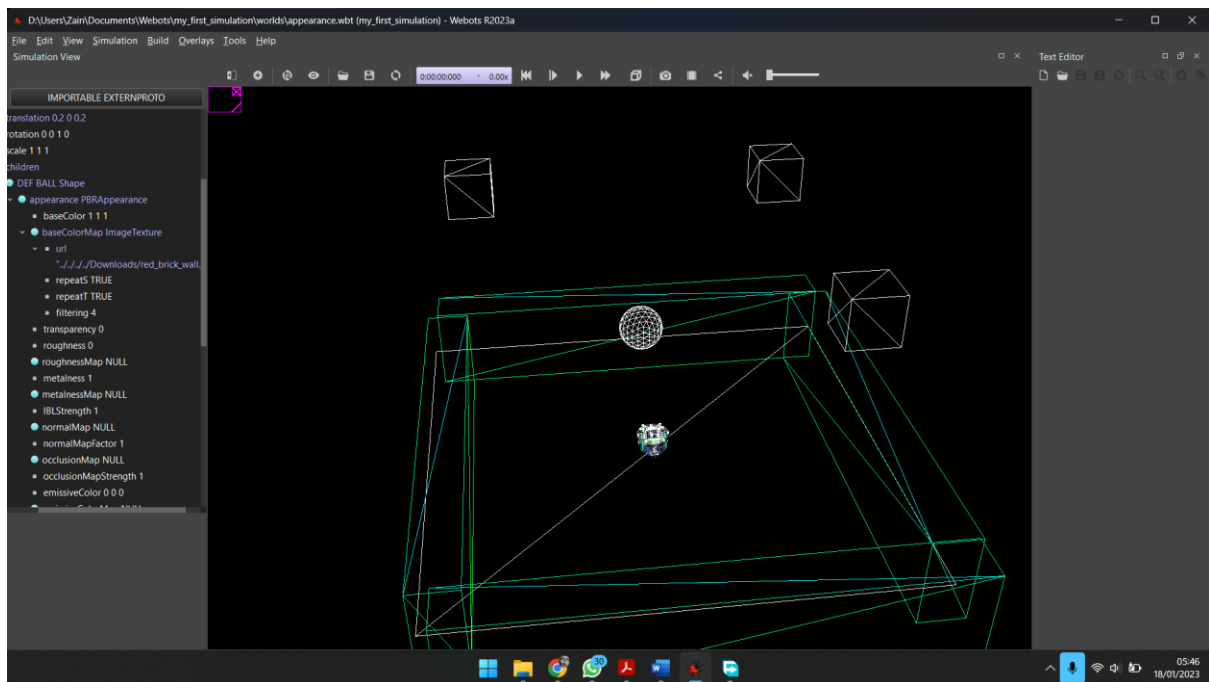

Gambar 20 Hands-on 3

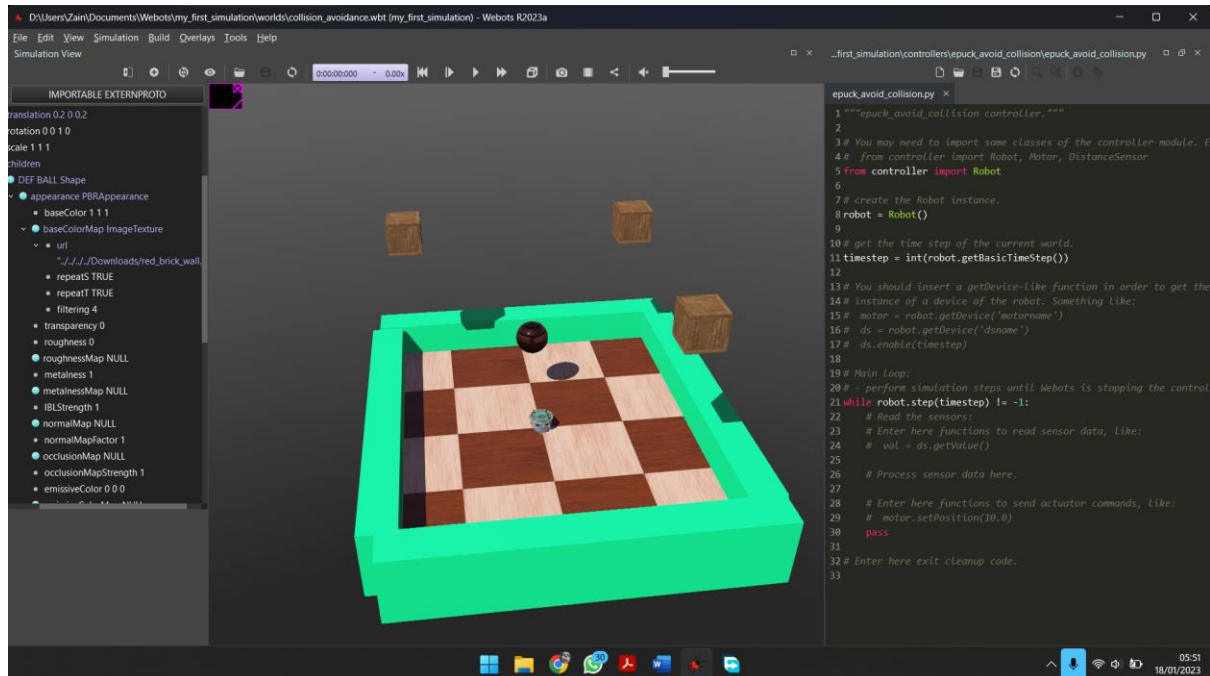d. Add a Texture from Disk

Gambar 21 Hands-on 4

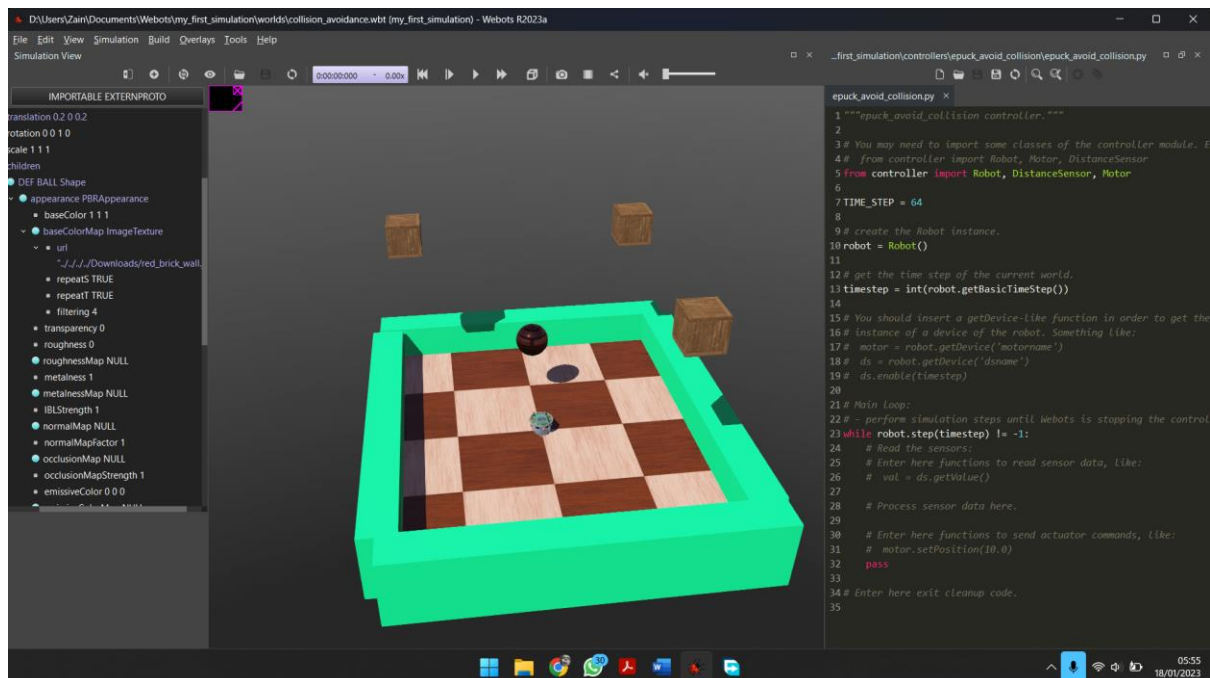e. Rendering Options

Gambar 22 Hands-on 5

4. More about Controllers
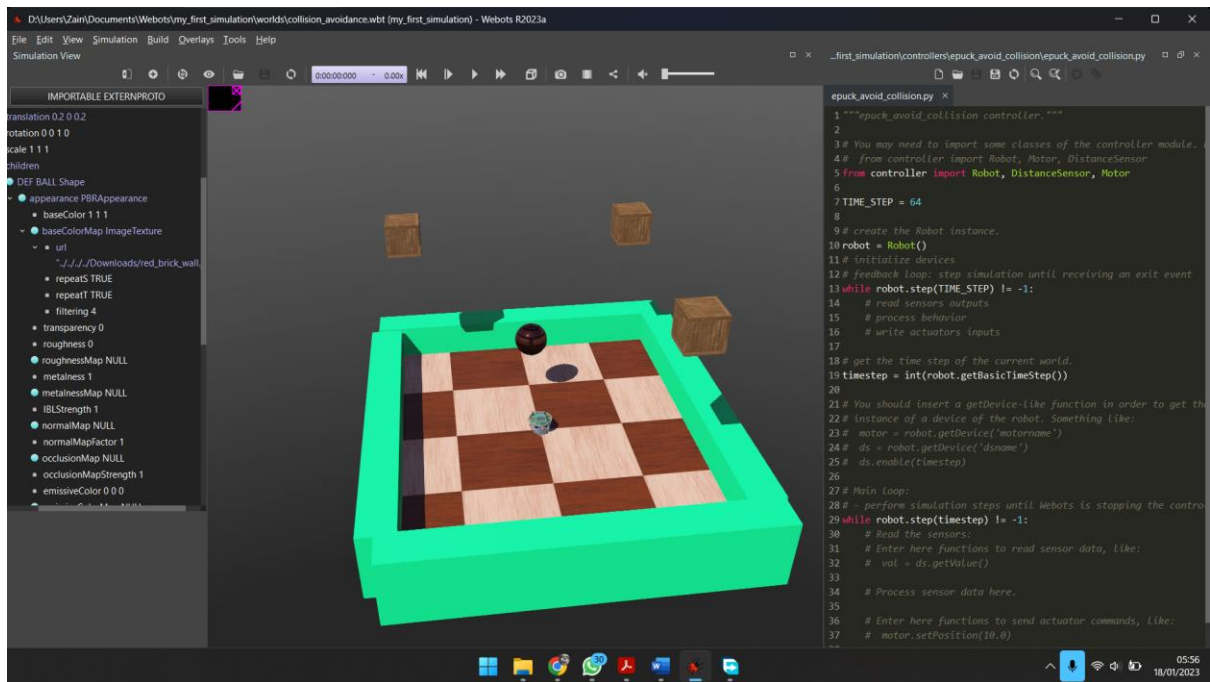
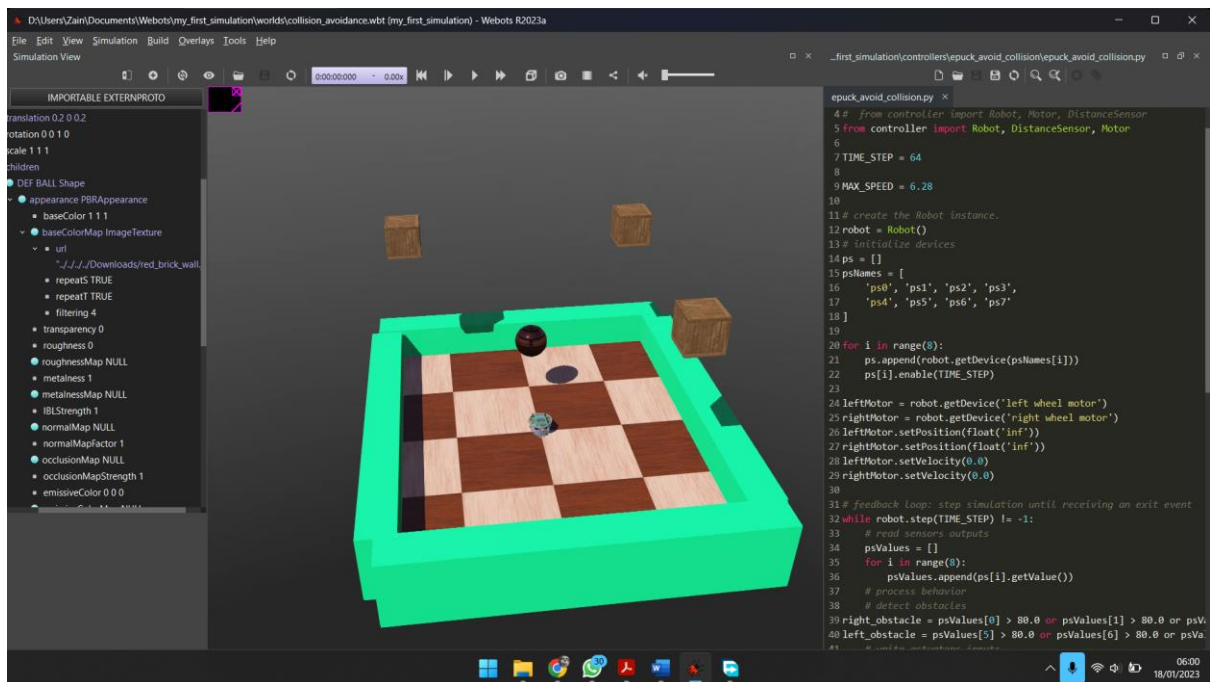a. New World and New Controller

Gambar 23 Hands-on 1

b. Program a Controller

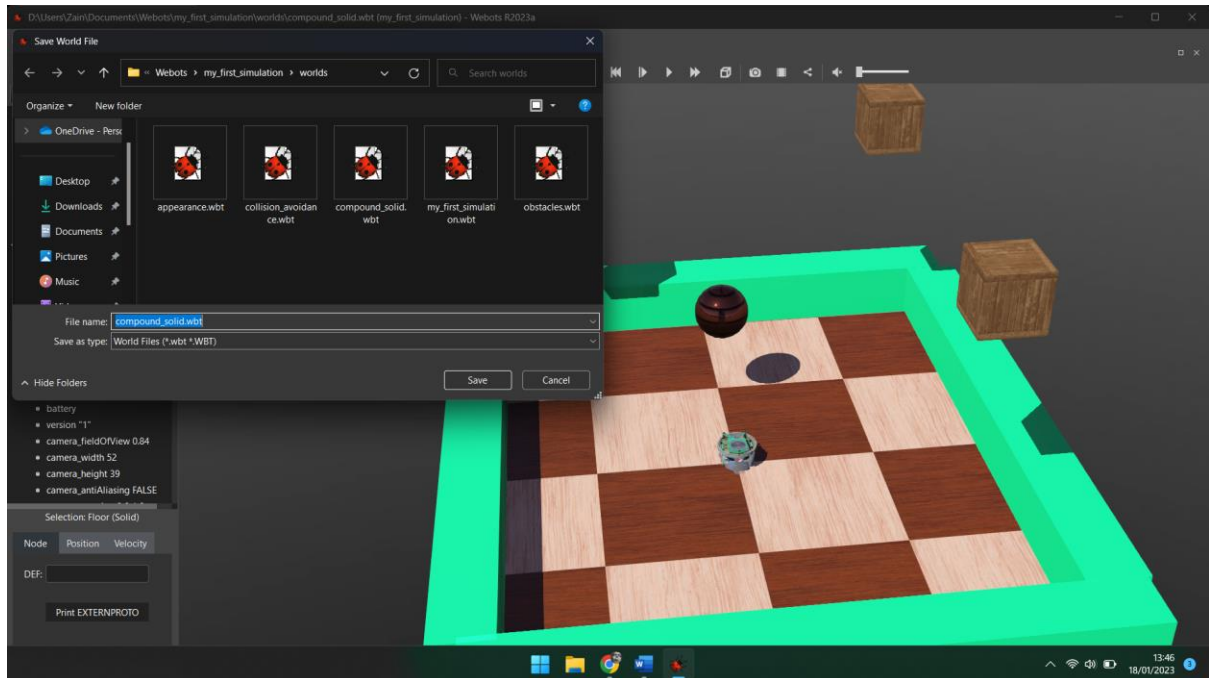
Gambar 24 Hands-on 2

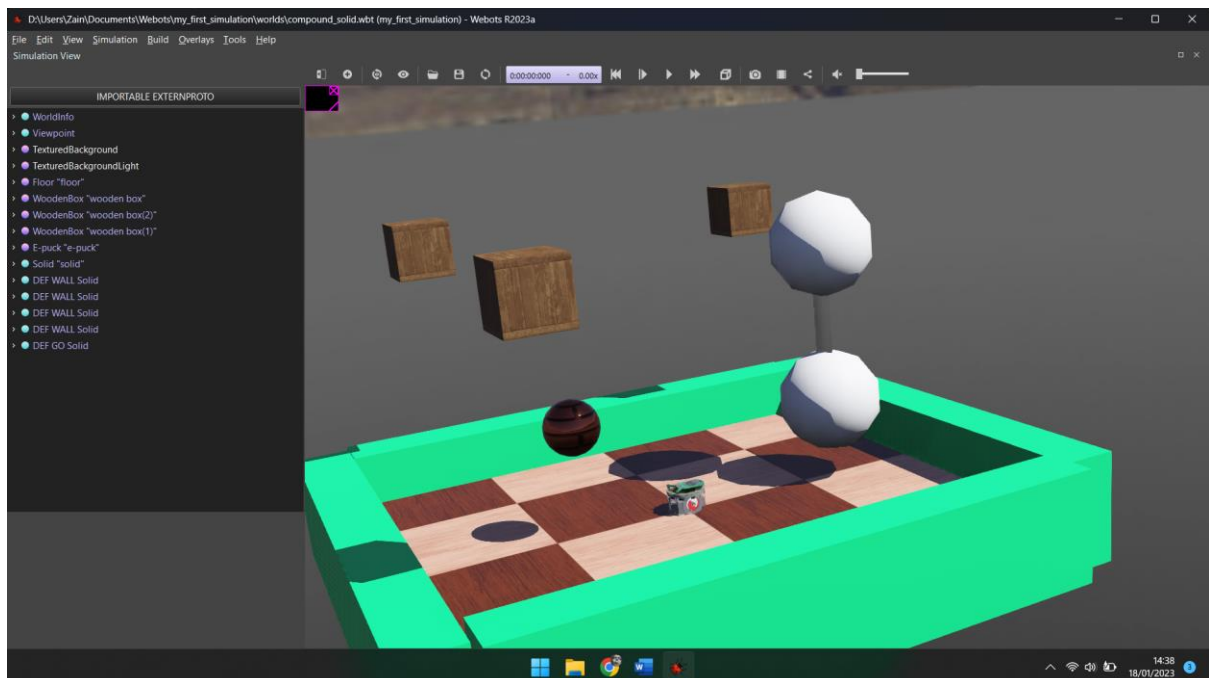Gambar 25 Hands-on 3

Gambar 26 Hands-on 4

5. Compound Solid and Physics Attributes
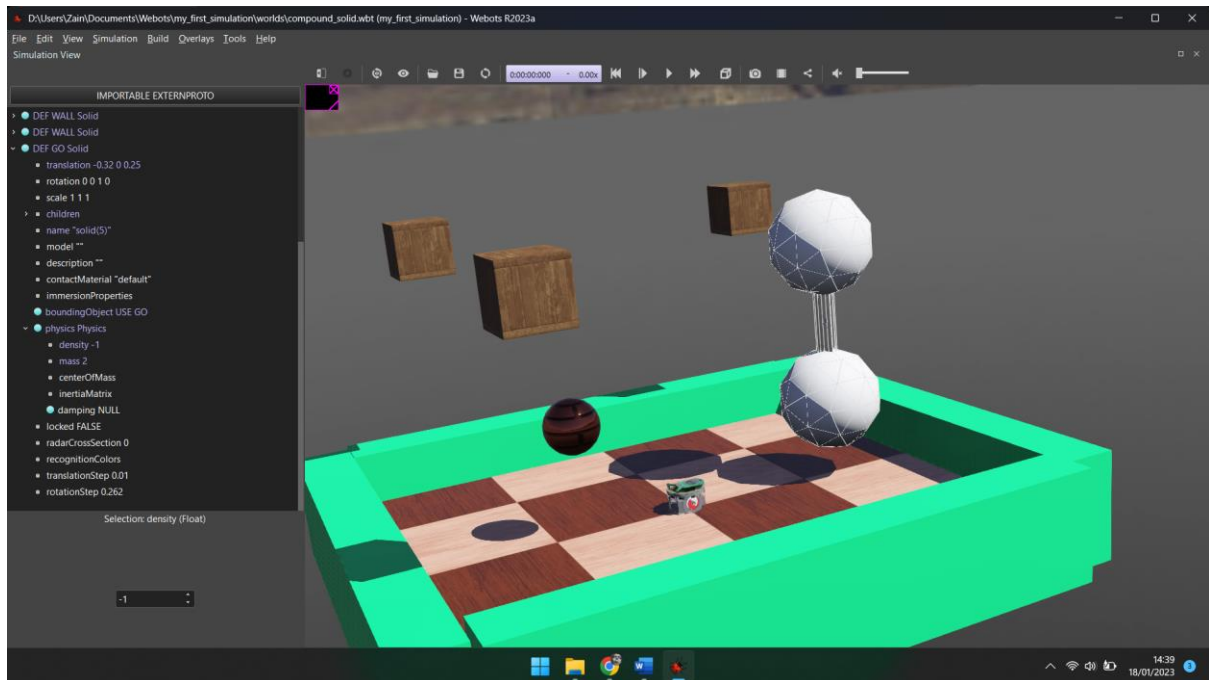
a. New Simulation

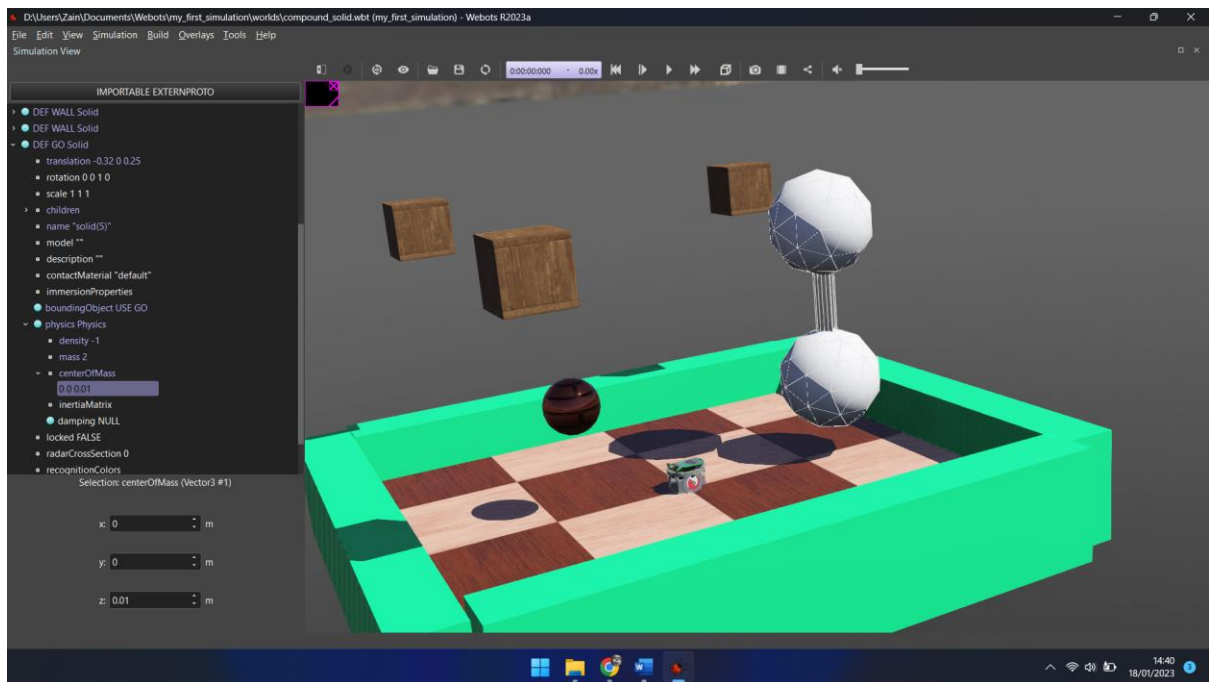
Gambar 27 Hands-on 1

b. Compound Solid

Gambar 28 Hands-on 2

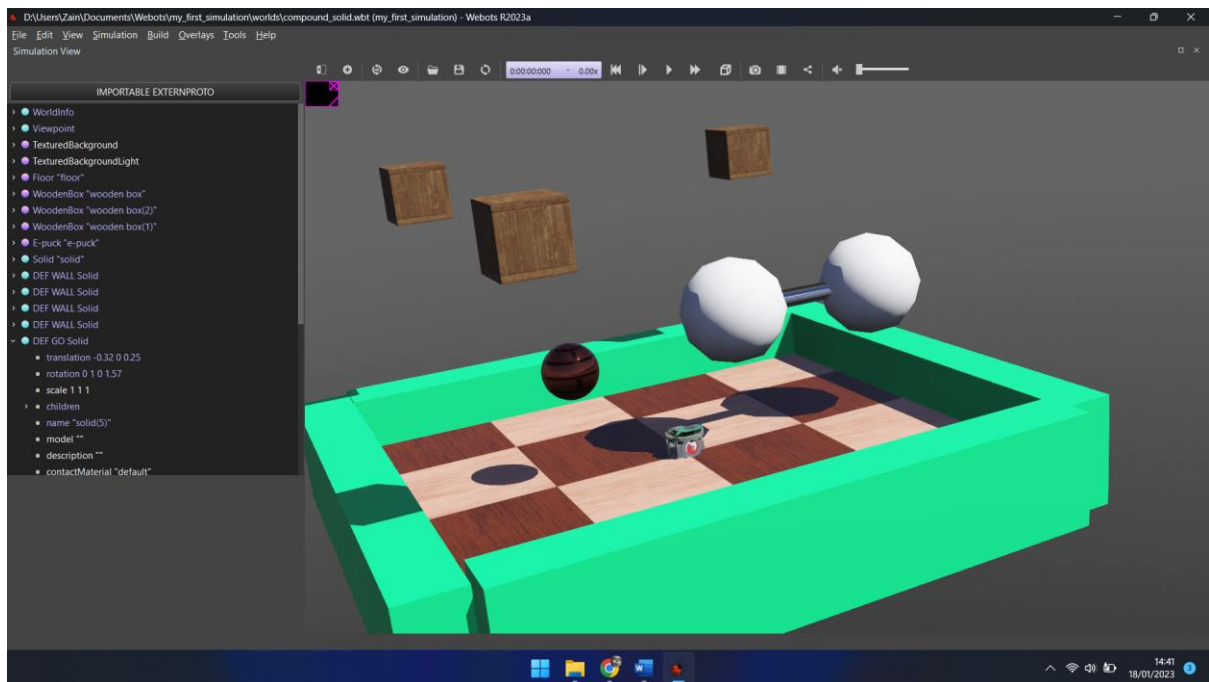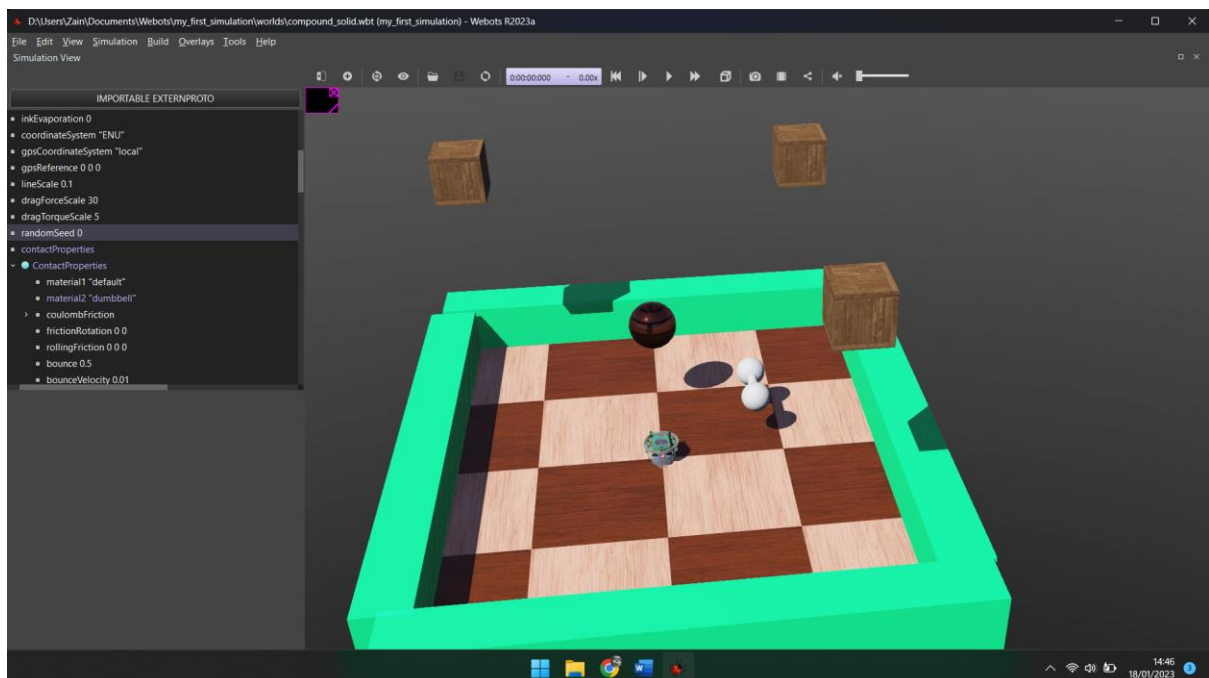c. Physics Attributes

Gambar 29 Hands-on 3

Gambar 30 Hands-on 4

d. The Rotation Field
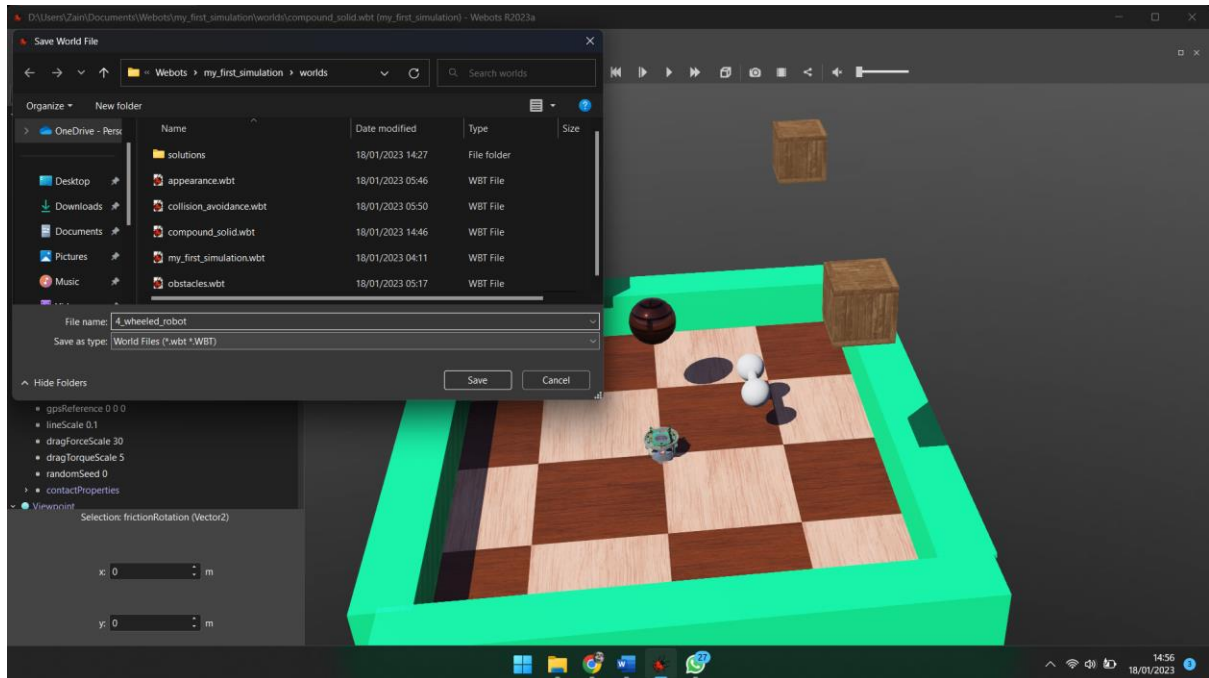

Gambar 31 Hands-on 5
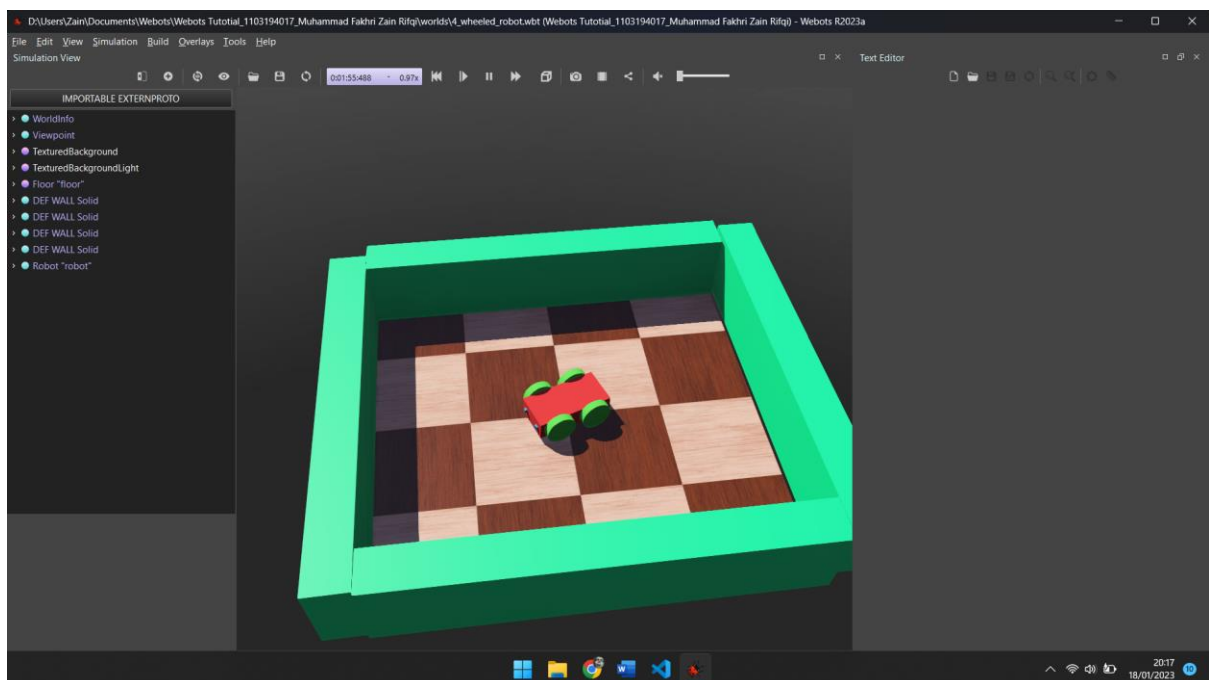
e. Contacts

Gambar 32 Hands-on 6

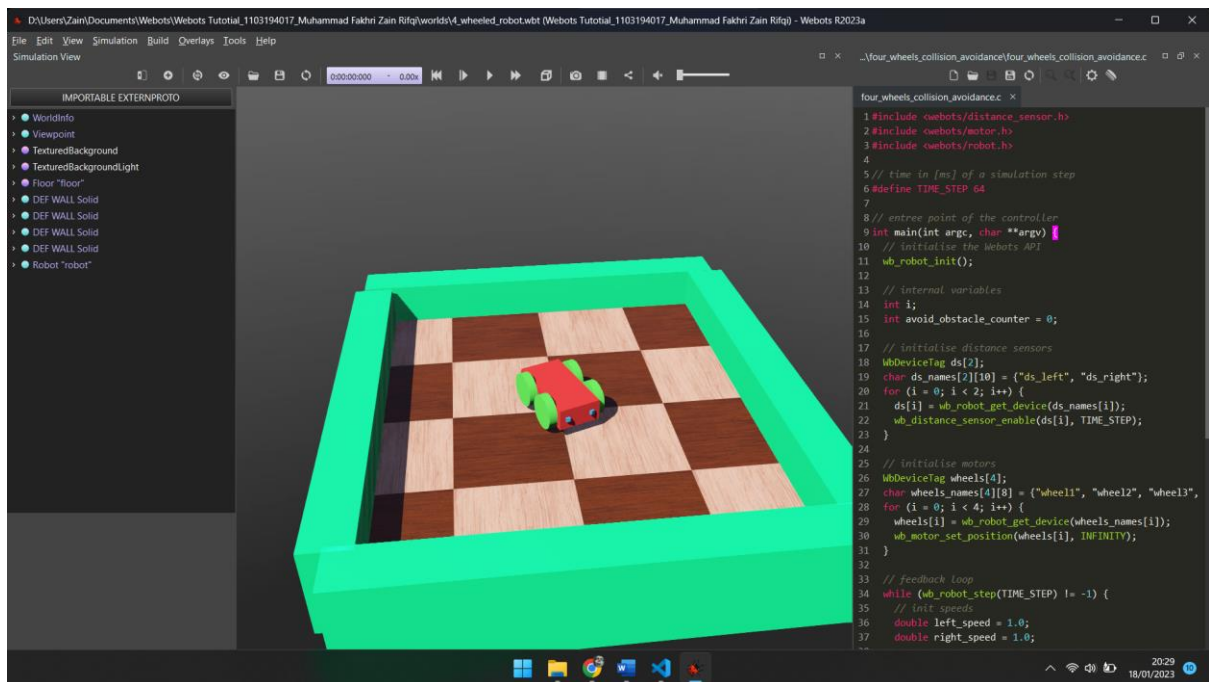# 6. 4-Wheeled Robot

a. New Simulation

Gambar 33 Hands-on 1

b. Separating the Robot in Solid Nodes
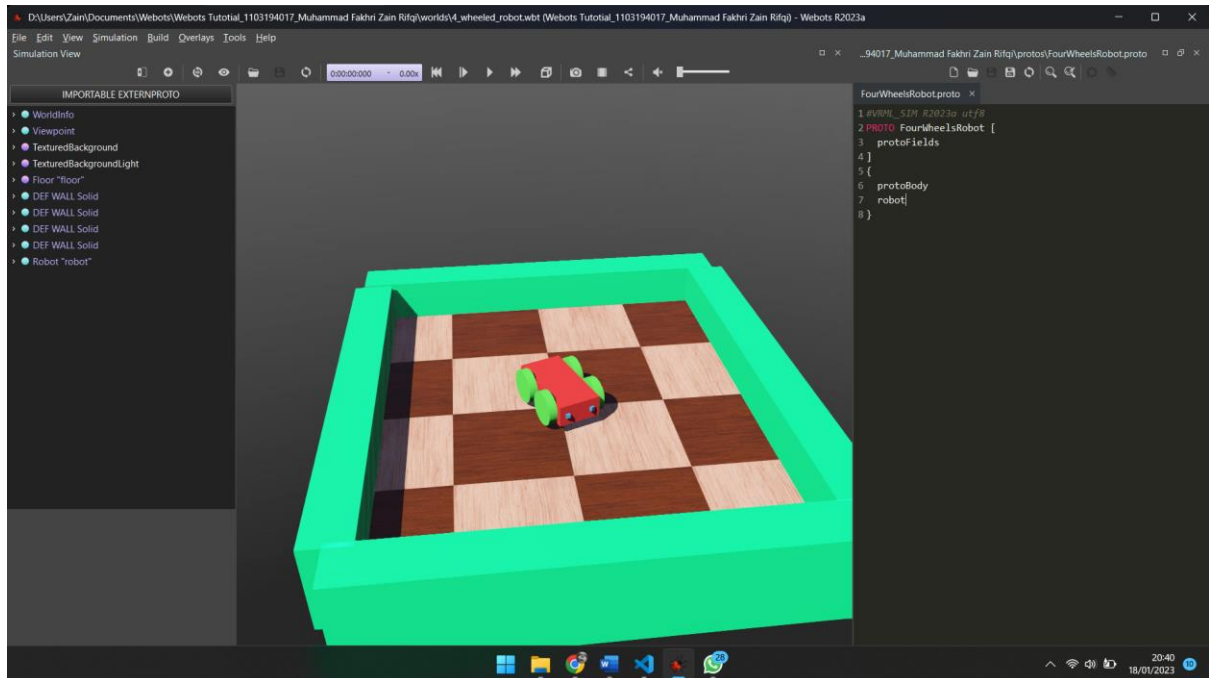

Gambar 34 Hands-on 2

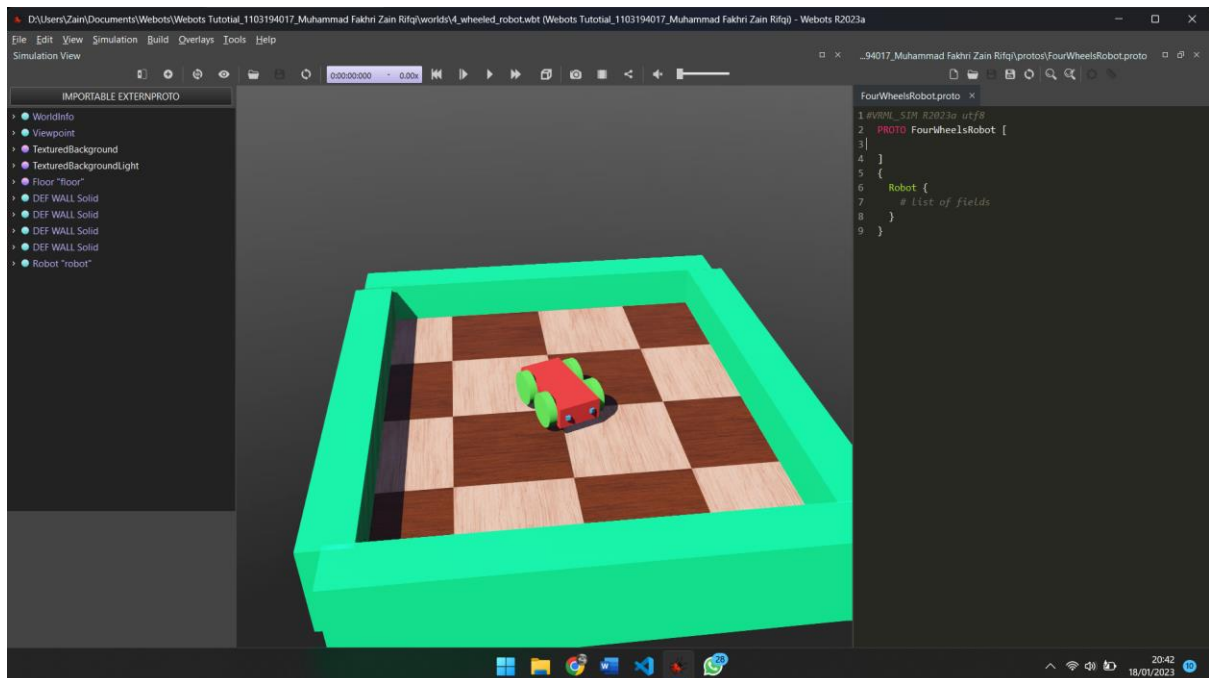c. Controller

Gambar 35 Hands-on 3

7. Your First PROTO

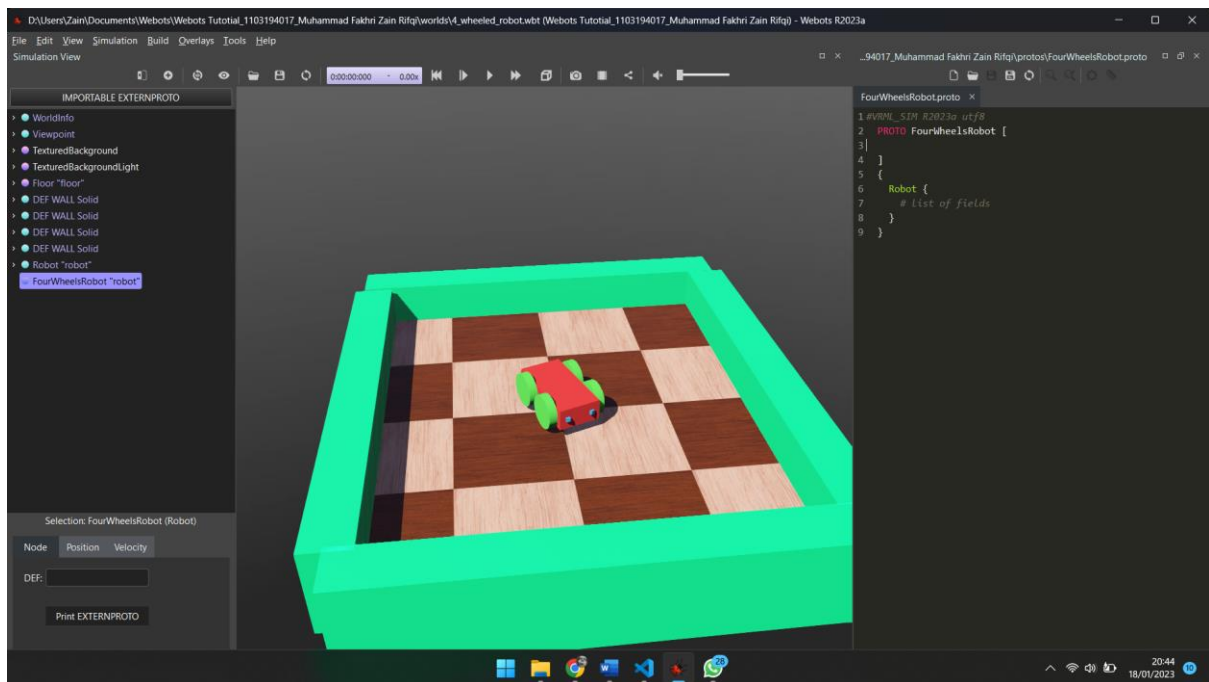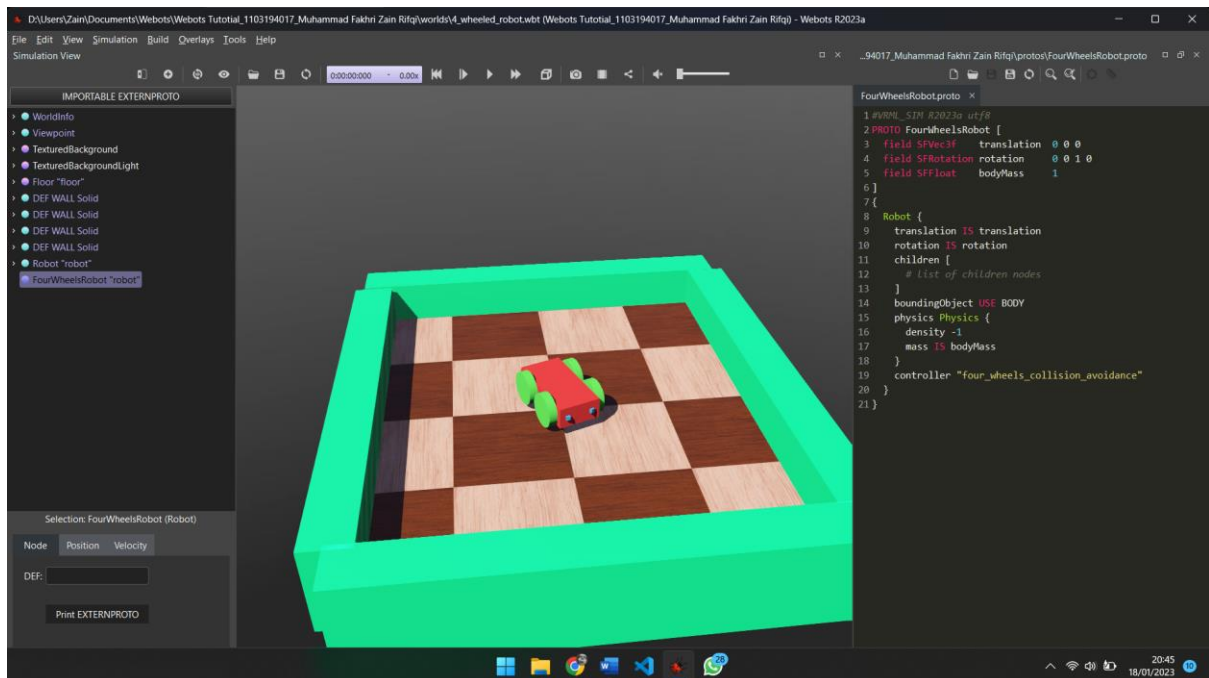## a. Copy the Robot Definition

Gambar 36 Hands-on 1

Gambar 37 Hands-on 2
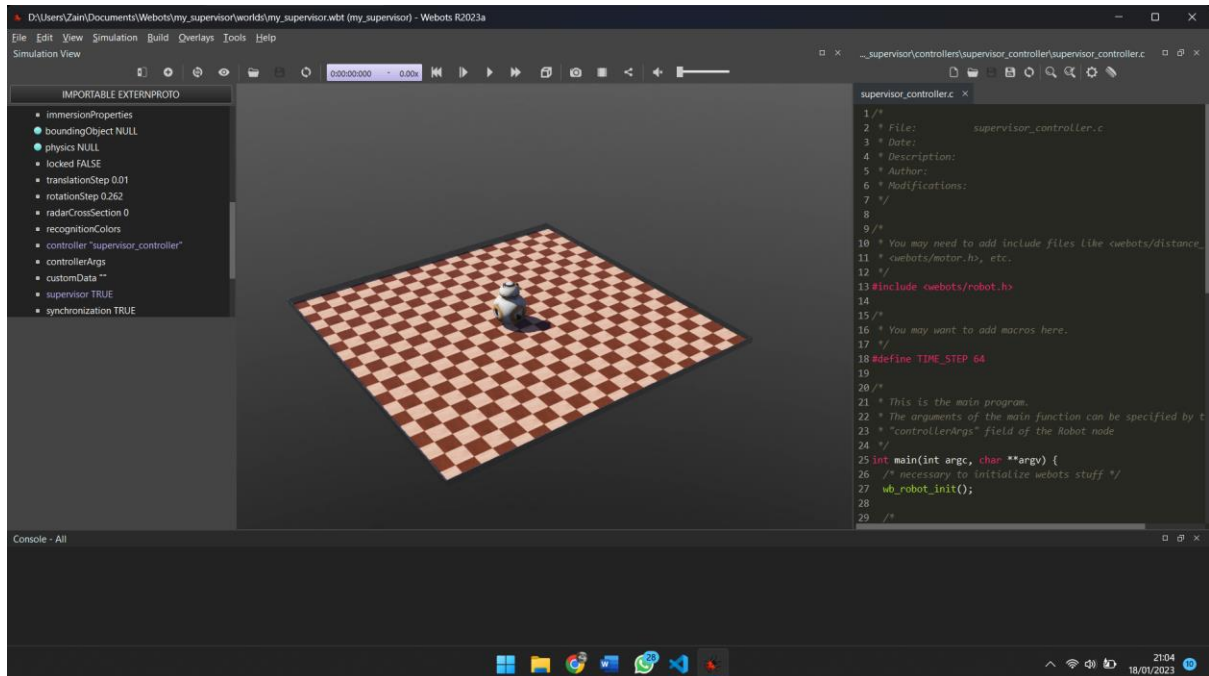
b. Use the PROTO Node

Gambar 38 Hands-on 3

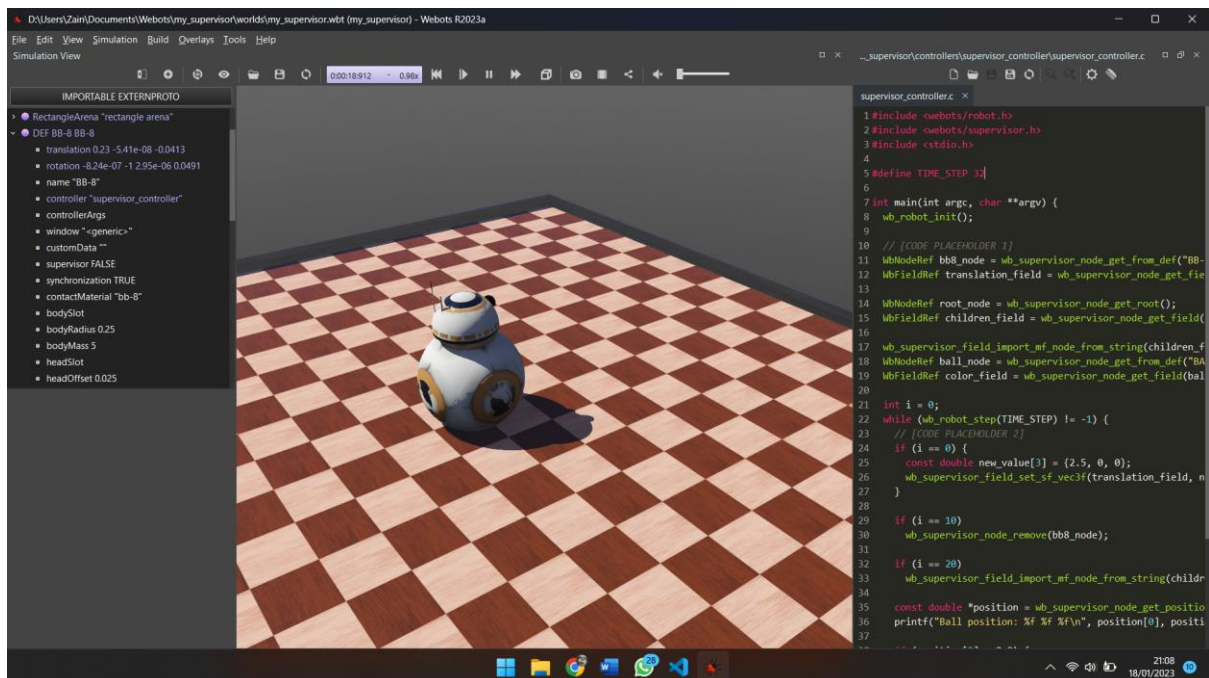c. Adding Fields

Gambar 39 Hands-on 4

8. the Supervisor

a. Setting up the Environment and Adding a Supervisor

Gambar 40 Hands-on 1

b. Putting Everything Together

Gambar 41 Hands-on 2