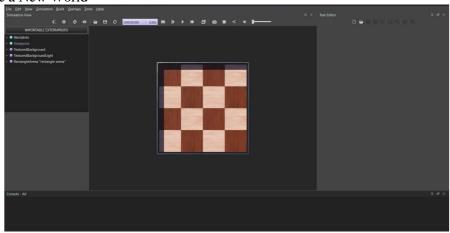
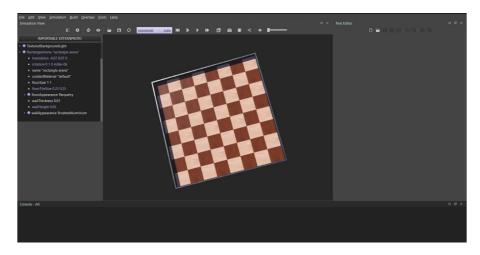
Nama: Muhammad Althaf Dhiaulhaq NIM: 1103194046

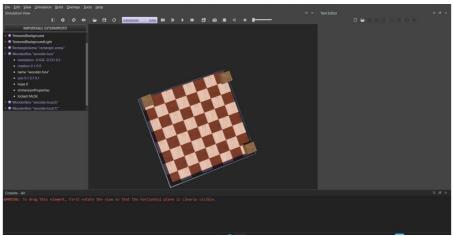
WEBOTS TUTORIALS

1. Your First Simulation in Webots

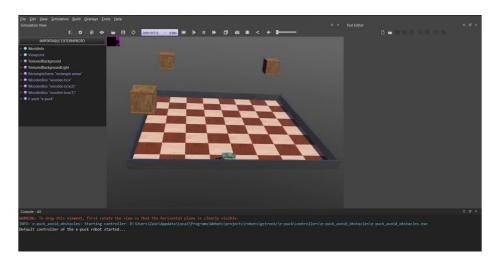
a. Create a New World

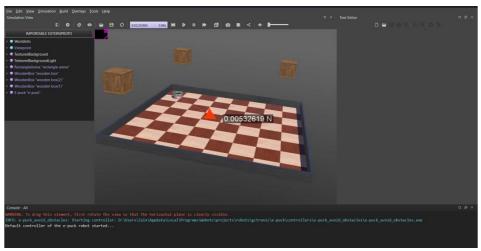


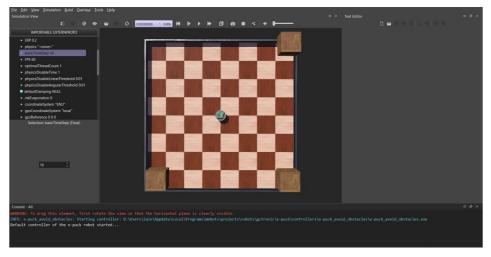




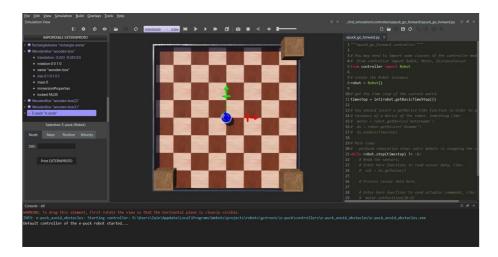
b. Add an e-puck Robot

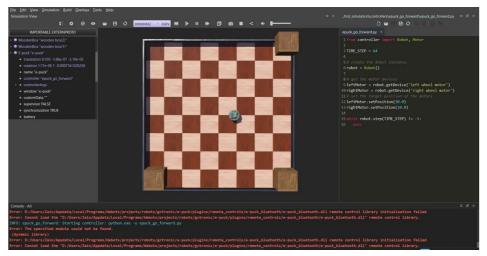




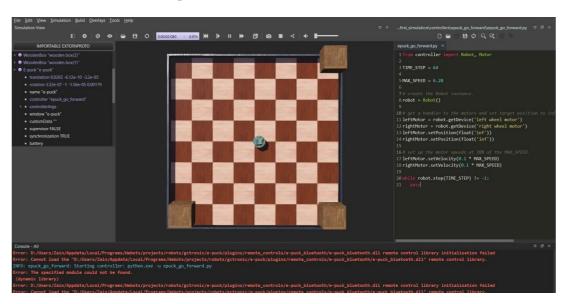


c. Create a New Controller



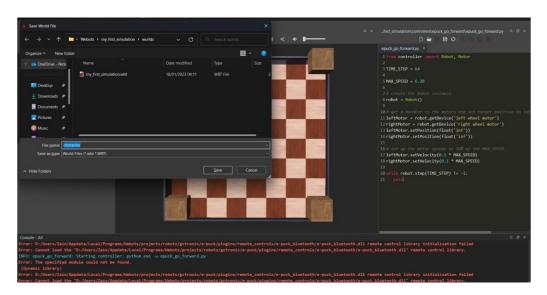


d. Extend the Controller to Speed Control

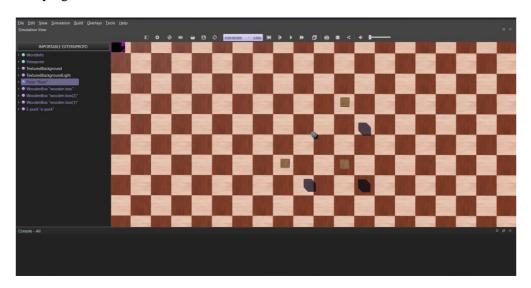


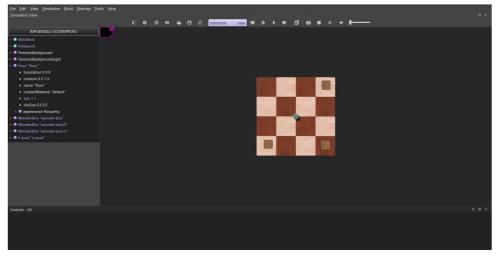
2. Modification of the Environment

a. A New Simulation



b. Modifying the Floor

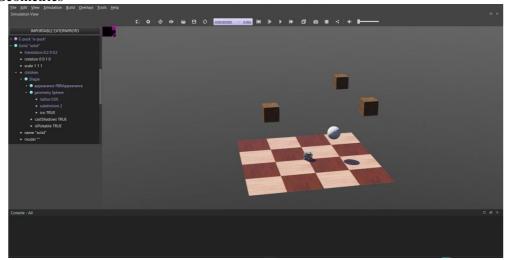




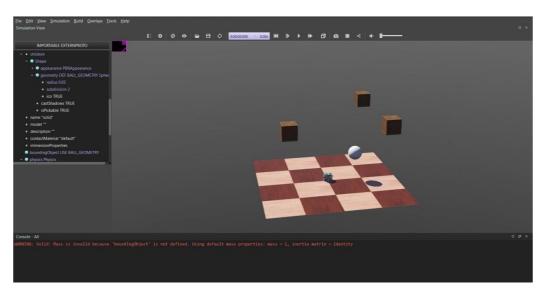
c. Create a Ball



d. Geometries

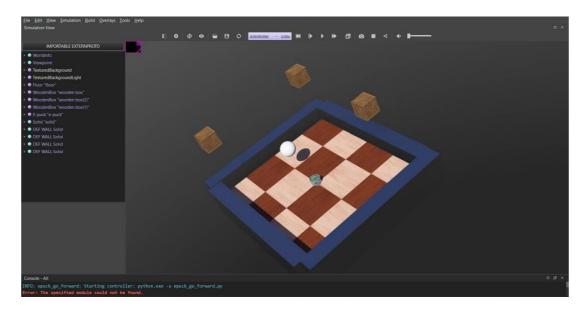


e. DEF-USE Mechanism





f. Add Walls

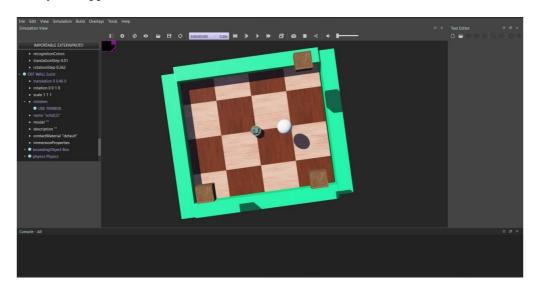


3. Appearance

a. New Simulation



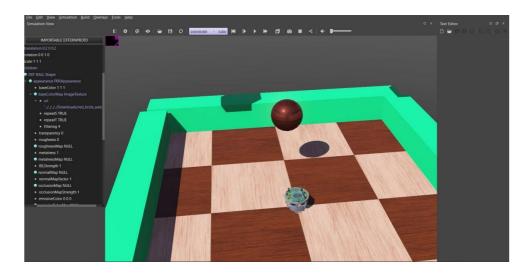
b. Modify the Appearance of the Walls



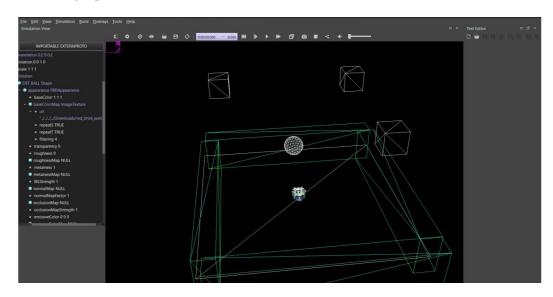
c. Add an Existing Appearance to the Ball



d. Add a Texture from Disk

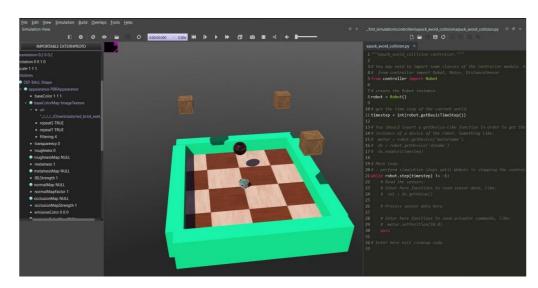


e. Rendering Options

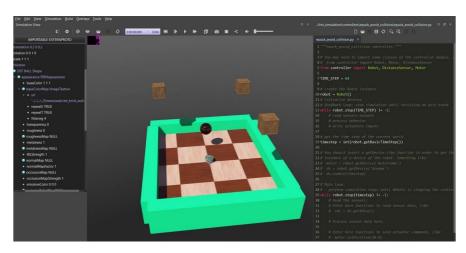


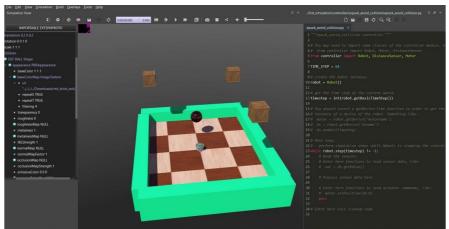
4. More about Controllers

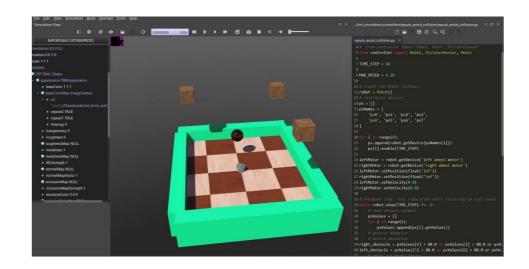
a. New World and New Controller



b. Program a Controller





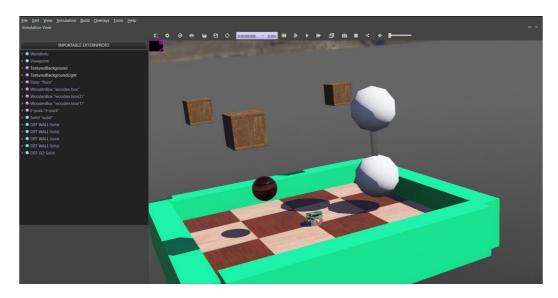


5. Compound Solid and Physics Attributes

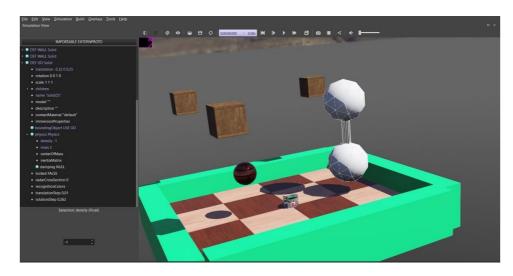
a. New Simulation

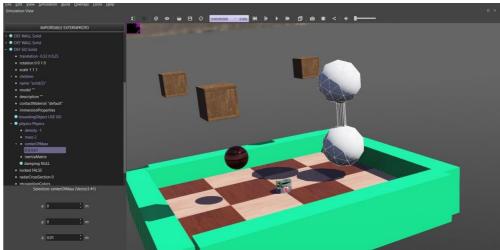


b. Compound Solid

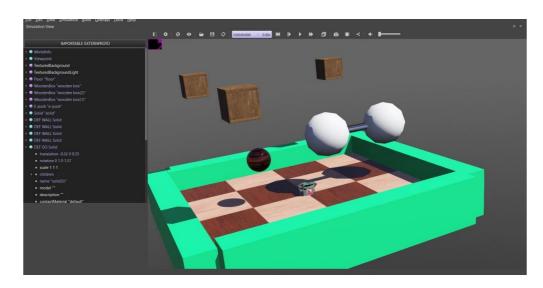


c. Physics Attributes

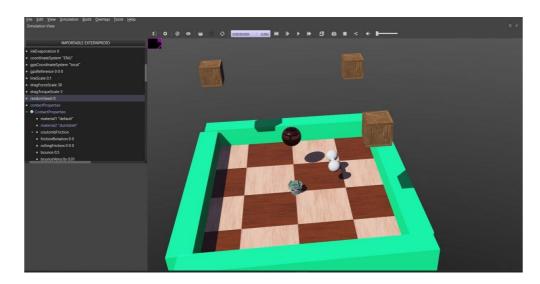




d. The Rotation Field

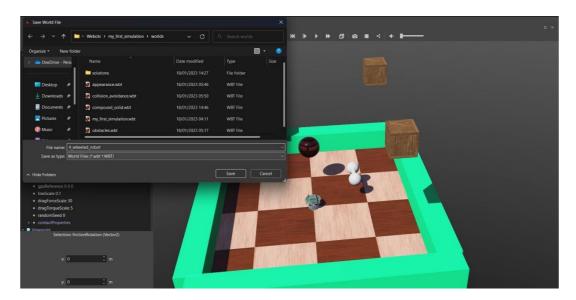


e. Contacts

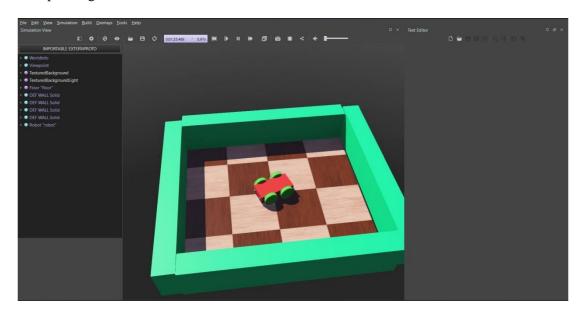


6. 4-Wheeled Robot

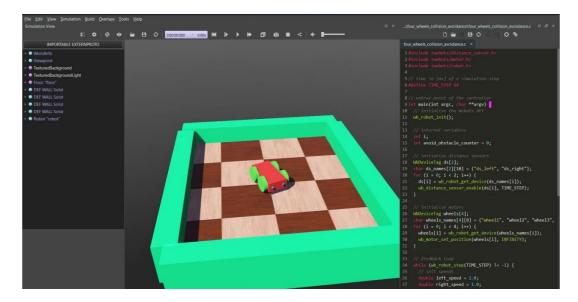
a. New Simulation



b. Separating the Robot in Solid Nodes

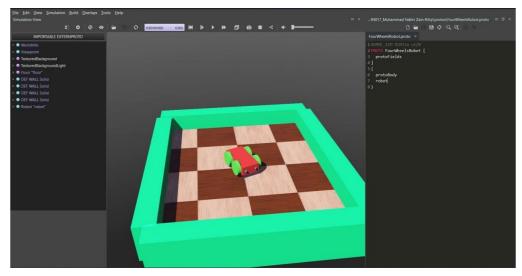


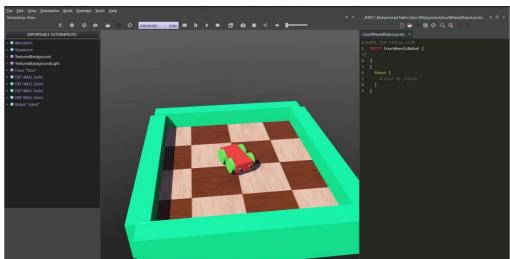
c. Controller



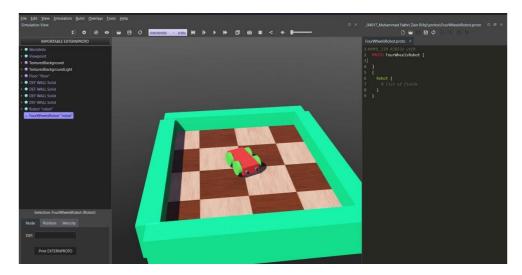
7. Your First PROTO

a. Copy the Robot Definition

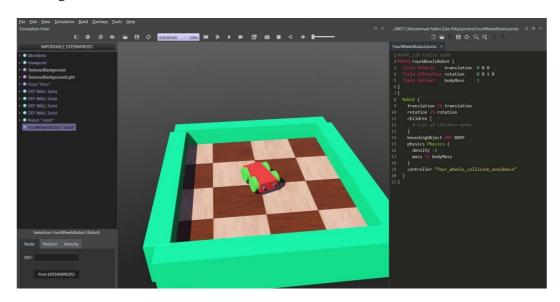




b. Use the PROTO Node

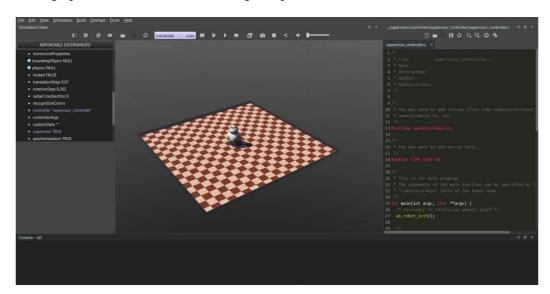


c. Adding Fields



8. the Supervisor

a. Setting up the Environment and Adding a Supervisor



b. Putting Everything Together

