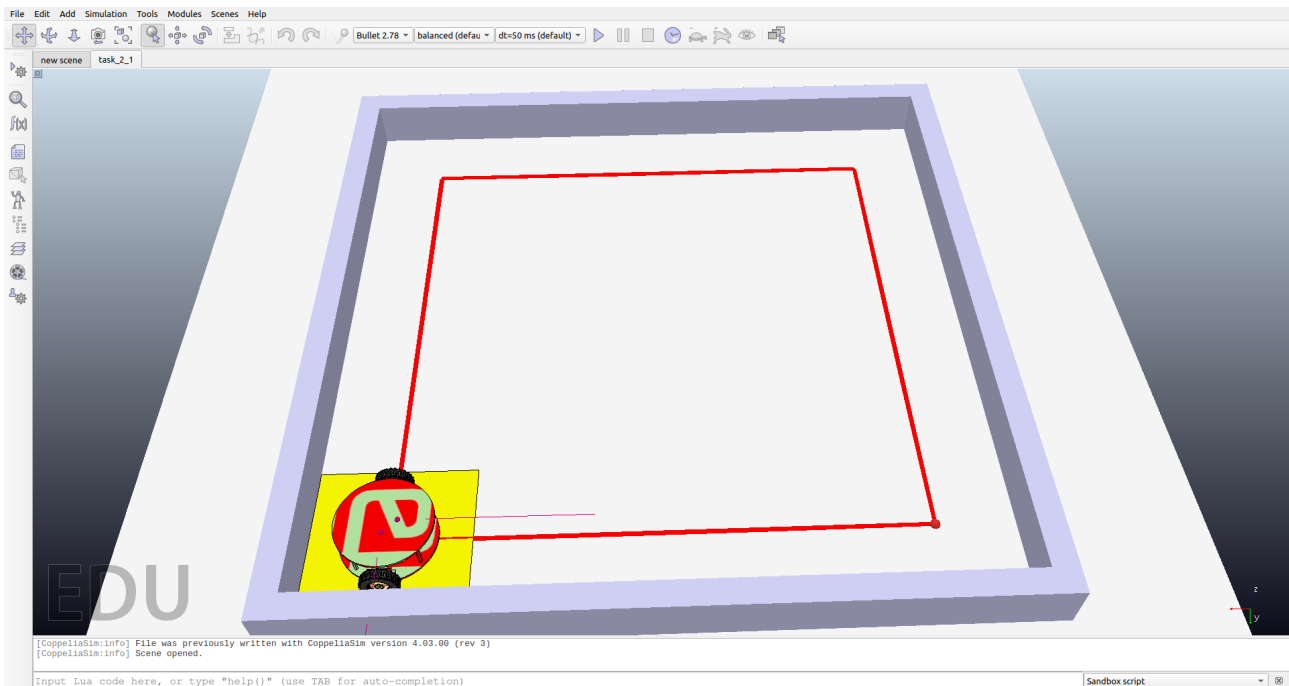


Task 2.1

Problem Statement:

Move the differential drive robot around the arena by following the walls without colliding with them.

Arena:



The arena consists of the walls, the differential drive robot and two proximity sensors attached on front and side of bot.

Theme rules:

- None of the above mentioned objects can be moved or tampered with.
- The arena cannot be changed in any way.
- Your job is:
 1. To detect walls near the bot by using proximity sensors and avoid them
 2. move the bot stably around the arena
 3. keep a safe distance from the walls
 4. move the bot as if it is following the below red line
 5. stop the bot once it complete its round and reach the same position
- Once the simulation started, human intervention is not allowed

Scoring:

your score will be calculated as:

score = 100 - (% of error of bot's travelled path)

error of bot path = mod((Actual distance covered by bot) – (Actual length of the red path))