[HiWi] Blender Robot Designer - Python Programming

BACKGROUND

The Human Brain Project is a highly interdisciplinary EU research project to unify the understanding of the Human Brain. For this purpose the Neurorobotics subgroup develops a comprehensive simulation framework, the Neurorobotics Platform (NRP), to emulate biological and biomimetic body models. Following the concept of Embodiment simulated biologically realistic neural networks and modalities can be tested on virtual models. In the Project the Robot Designer (see image on the right), a python plugin for the 3D modelling suite Blender, is developed as a tool to create and adapt new biomimetic robot models.

YOUR TASK

You will implement new features in the Blender Robot Designer plugin to offer all necessary tools for biomimetic robot design. The Plugin includes a user-friendly GUI, robot kinematics calculation as well as import and export to xml. The HiWi position is paid 5-10 hours per week.

REQUIRED SKILLS

- Python Programming - Advanced knowledge and project experience
- Blender, Git - desired but not necessary
- Gazebo - desired but not necessary

FURTHER READING


Code and Documentation Robot Designer:
https://github.com/HBPNeurorobotics/BlenderRobotDesigner/tree/master

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