

Spring Semester 2021

Research Project: Cellulo

Teaching Cellulos Interaction Rules

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MOTIVATION

Develop an app allowing human users to teach micro-level behaviours to Cellulo robots with a programming-by-demonstration framework that extracts features from a trajectory and define the effectiveness of such a data set.

METHODS

c# programming using Unity to develop the app

Google Drive API was used to be able to store the logs online.

Define a grammar of relevant interaction rules to use

Python/Matlab programing to plot and analyze the resulted data

RESULTS

Functional android app to control multiple Cellulos by touch, log their positions and store it online.

10 persons participated in the experiment, which led to 10 trials for 11 rules.