

Agenda for meeting on 16-5-2020

Project: 1-2 Crazy Putting

Date: 11/6/2020

Group number: 4

Group members: René Steeman, Aaron Schapira, Ivan Poliakov, Jean Janssen, Matthijs Kusters, Haoran Luan

Chair: René

Secretary: Aaron

1. Opening at 12:00
2. Minutes last meeting
 - a. Remarks from group: none
 - b. Remarks from tutor
3. State of the project
 - a. Completed tasks/milestones: Report title page, table of contents, introduction, references (although not all our sources are included yet) and part of the methodology. The design for the improved bot. Part of the implementation of the random error in the initial position and velocity. Part of the collision detection. The code for resetting the ball after hitting water, but it's not connected to the physics engine yet. A way to determine what material the ball is on (grass or sand).
 - b. In progress: Report methodology and experiments, improved bot code, random error for the initial position and speed, flying balls, collision detection.
4. Planning
 - a. Things to finish before the next meeting: Report methodology and experiments, random error for the initial position and speed, flying balls, collision detection, resetting the ball after hitting water, using different coefficients of friction.
 - b. In progress before next meeting: Experiments, results, discussion, conclusions, improved bot, flying balls, bouncing balls.
 - c. We have meetings Monday, Tuesday, Wednesday and Thursday at 20:00, Saturday and Sunday at 10:00. Problems that require help should be mentioned before the meeting and help will be given outside of the meetings.
 - d. Planning of the complete phase

Description	Who?	4-jun	7-jun	10-jun	13-jun	16-jun	19-jun	22-jun	24-jun	Extended description
10:00 at Friday, Saturday and Sunday at 10:00. Problems that require help should be mentioned										
MAJOR BUILDS / MILESTONES										
Report skeleton	René									The basic structure of the report is finished
Finished report	René and Jean									The report is completely finished
Random error in initial position and velocity	Matthijs									and investigate how this affects performance of your bot. Vary the magnitude
Different coefficients of friction	Ivan									Different greens have different coefficients of friction. Extend your bot to
Flying and bouncing balls (including accordingly improved bot)	Matthijs, Aaron, Ivan									If a ball is hit hard on a sloping course, it may fly into the air. Extend your
Collision detection	Aaron									Allow obstacles and bodies of water in your course design. Implement a collisiondetector for
Extended bot for maze-like courses (including test courses)	Ivan									determining whether the ball has fallen into a body of water or hit an
										Extend your AI bot player to handle complex maze-like courses with obstacles.
Report										
The skeleton of the report (keywords and structures)	René									Create the basics of the report in LaTeX (keywords and structures)
Report draft	René and Jean									Have a rough version of the report to be checked.
Full report	René and Jean									
title page	René									
contents	René									
list of tables and images	René									
summary/abstract	René and Jean									Motivation, problem statement, approach, main results, conclusion
intro	René and Jean									Context, motivation, primary question, relevance, state-of-the-art, choice of focus, main approach, report structure
preliminaries	René and Jean									Detailed and technical background
methodology	René and Jean									Describe approach step by step, used algorithms, referring to original works, description of used data
implementation	René and Jean									Software implementation of the methods, UML diagrams, pseudocode
experiments	René and Jean									Complete description of experiments/analysis/simulations, including motivation and their uses.
results	René and Jean									Results of experiments (without interpretation). Use tables and figures (including title and description of content)
discussion	René and Jean									Interpret results, answer research questions, why are these the results, use previous studies as backup, how does this advance the state-of-the-art.
conclusions	René and Jean									Discuss issues and possible solutions. What are limitations of the study? How to continue on this work?
references	René									Summary of the study, answers to questions (no new info). How to continue with this research? Recommendations?
appendices	René									used references
Bot										
Design improved bot	Ivan									Design the improve bot that can handle maze-like structures, flying balls, water, trees and a random error in starting conditions
Basic version	Ivan									Have a working version of the bot, but it doesn't have to be optimal
Improved bot finished	Ivan									Have an optimal version of the bot working, including demonstrations of it working
Physics										
Random error in initial position and velocity	Matthijs									Add a random offset to the initial position and velocity of the ball
Flying balls	Matthijs									Allow for the ball to fly instead of it being locked to the height of the terrain
Bouncing balls	Matthijs and Aaron									Add physics for bouncing balls, this is meant for bouncing against trees and the terrain
Engine										
Collision detection	Aaron (with René helping)									Add collision detection to the ball so it can "hit" trees and the water
Game mechanic										
Reset ball after hitting the water	René and Jean									Allow the user to select a point along the starting position up to the location where the water was hit using a UI.
Detect if you're on sand or on grass	René and Ivan									Have a function that returns whether you are on grass or sand
Presentation										
Presentation	Aaron									Create the presentation and practise
Planned duration										
Finished earlier than planned										
Critically behind on schedule										
Possible extension										
Disaster										
Have something dead, even though it's not optimal										
Slightly behind										
Requires extra attention										

5. Any other business (2 minutes)
 - a. From group: How many sub-questions should we have in the report, should we for instance also discuss collision detection, balls hitting the water, the way shaders work, etc? Is it okay if we use a simplified UML diagram in the report, since the full UML diagram is extremely large?
 - b. From tutor:
6. Chair/Secretary for the next meeting. Chair: Jean, secretary: Aaron
7. Closing at 12:15