



SYNTHORGANIC

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3/18/24
DESALES UNIVERSITY
CS356

Team Synthorganic Sprint 2 Planning Document

1 SPRINT OVERVIEW

1.1 OVERVIEW

In this sprint we will be focusing on the neural network and connecting it with blender.

1.2 SCRUM MASTER

Lorenzo Alderiso

1.3 SCRUM MEETING TIMES

3/21/24 3:30 - 5:00

3/25/24 11:00 - 11:50

1.4 RISKS/CHALLENGES

Connecting the neural network to Blender may prove to be difficult and the outcome of the neural network's effect on Blender is unknown.

1.5 PREVIOUS SPRINT EFFORT

Task	Estimated	Actual
Create a basic outline of the Neural Network	2 hours	2
Connecting TensorFlow with Blender	1 hour	2
Define and label all sensors data will be inputted from	1 hour	1
Create a basic human model in blender	2 hours	2
Label all key points on model leg (For positional data that we will input data from)	1 hour	1

2 CURRENT SPRINT DETAIL

2.1 USER STORY

The prosthetic leg system shall accurately detect the user's intention to walk and initiate the walking motion within 5 seconds.

2.1.1 Tasks

Task description	Estimated time	Owner
Testing the Neural Net with dummy data	4 hours	Harkiran
Defining leg parts in blender in the script	4 hours	Mo
Calibrating Isaacgym	4 hours	Lorenzo

2.1.2 Acceptance criteria

If implemented correctly we should be able to control the simulated legs using code.

2.2 USER STORY

The user should be able to walk in a straight line in a virtual environment.

2.2.1 Tasks

Task description	Estimated time	Owner
Having the legs walk in a straight line using the neural network	4 hours	Mo, Harkiran, Lorenzo
Test the gravity and simulation capabilities of Blender with the legs and neural network	2	Mo, Harkiran, Lorenzo

2.2.2 Acceptance criteria

If the legs can walk in a straight line using the neural network and that Blender accurately simulates the realistic environment we're trying to replicate.