

FIT2099 - Object Oriented Design & Implementation - Semester 1, 2017

Assignment #2 - Star Wars - Roguelike One - Design Changes to Droids and Healing Actions

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Changes for Droids:

Slight variations and changes of the implementation and design have been made to the Droid class that implements regular Droids - and the two **special Droids, namely, R2-D2 and C-3PO** (as required by the extra functionality of the design of Assignment #2).

First off, it was made that Luke (the player character of the game) is able to Take Ownership of any Droid, and is able to heal them (if he holds an oil can - using the HealDroid action), dismantle them (into Droid Parts using the Disassemble action) and repair Droids (using the Repair action). In the healing action, the requirement of having a oil can is strict - without it, Luke will not be able to heal the Droids!

Both Ben Kenobi and any Tusken Raider that is created by the SWWorld class was designed **not** to be able to be interactive to any Droids. It is seen that Tusken Raiders are the bane of the Star Wars universe - so they are seen as roguelike entities that only known one thing - attacking those who are not one of them. Also, Ben lives in the Badlands in his hut - training the ways of the Force - as seen by the Force implementation.

Droids themselves have set actions that they will undertake in the game. They move randomly (or follow their owner) once per turn, while constantly searching for an oil can. If they find one - it is possible they will pick it up and try and heal themselves.

R2-D2 and C-3PO are two special Droids of this class that implement two extra feature sets to the game. C-3PO (while not owned), stays still and rambles 1 of 10 quotes if initiated. R2-D2 (while not owned) - patrols 5 east then west steps - while constantly looking for Droids he can Disassemble and Repair - coming from his nature as the 'Repair Droid'!

Changes for Healing:

Healing remained relatively similar to the original planned design that was seen in the first part of this Assignment - albeit with slight alterations.

It was designed that Tusken Raiders are so savage that they will not attempt to heal

themselves if they are hurt, or if they find a Canteen. They (like the above stated) know only one thing - attack those who are not part of their Team.

Ben Kenobi (as described as a requirement in the extended functionality) is designed to look for a water canteen if he is not at 100% HP. If he finds a full Canteen, he will drink until he is at 100%, or the canteen runs out. **Note this occurs on successive turns - as per the requirement specified in Assignment 2's extended functionality needs).**

Droids (namely R2-D2) is able to heal other Droids in his path that need it. This will occur if R2-D2 and another Droid are on the same tile - and the target Droid has taken damage to their HP.

Apart from these changes, the implementation of healing for Luke remained the same as per the original design. He can heal himself, other Droids, and fill/dip a found Water Canteen in healing himself.

References

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