Worksheet - Rules

November 3, 2017

1 DESIGNING RULES FOR VR ENVIRONMENT

$$E = M * C^2 \tag{1.1}$$

To ensure realism and to estimate functionality of the virtual reality simulation a set of rules for the system should be drawn. The core rules can be separated into three primary groups; the system, the users, and the virtual equipment. However, these rules are set preliminary to implementation but is based upon the observations made in the training room as well as interviews with Jane Petersson. The mindmap of these rules can be seen below:

1.1 THE SYSTEM

The rules set for the system can be considered as a passive. These rules primary exists to accurately recreate the environment and ensure the proper functionality of the surgical equipment. This rules also track for any errors that might be done by the users, such as wrong positioning of the robot arms or bad tool placement.

1.2 THE USER

The users in the scene should be designated a specific role which entails different tasks, but they should not be limited by that role. Completing a task as a group, rather than multiple individuals should be the primary focus for the users. This means that communication is very important and key to the success of the entire simulation.
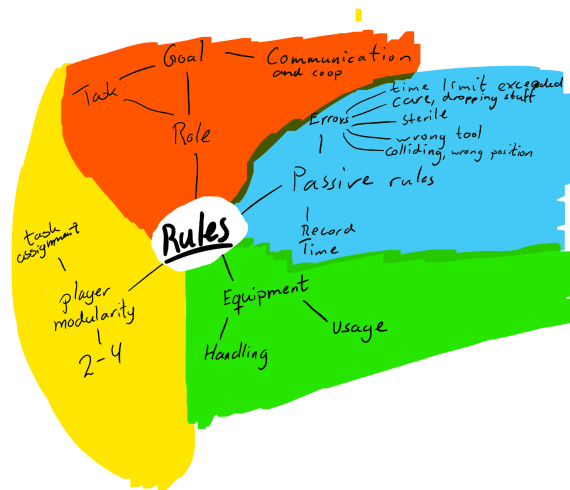
Goal — Communication and coop

Task

Role

time limit exceeded
care, dropping stuff
Errors — sterile
wrong tool
colliding, wrong position

Passive rules

Rules

Record
Time

task assignment

player modularity

2-4

Equipment

Handling

Usage

Figure 1.1: Mindmap

1.3 The Equipment

The equipment's rules should primarily focus on their specific use and how they should be handled by the users. Furthermore it should also include how the equipment should respond to certain user actions or other objects within the scene.