TENSTAR simulation

EXERCISES HARVESTER

EXERCISE	PURPOSE	DESCRIPTION	FEATURES
SERVICE AND MAINTENANCE			
1.2 Pre-start check	• Teach service points on the harvester • Rehears inspection routines	The student can move around the harvester and inspect it for faults. Each time the exercise is started the faults are randomized.	
CONTROL EXERCICES			
1.5 Drive	• Teach basic driving controls • Get the user familiarized to the simulator	Step by step the student will be introduced to all controls needed to drive the harvester; gear selection, drive mode, steering, acceleration and reversing.	
1.6 Level	• Teach leveling controls and their purpose	Step by step the student will be introduced to all leveling controls for the harvester while driving through obstacles.	
1.7 Crane	• Teach crane controls • Rehears crane controls	Step by step the student will be introduced to all crane controls. The student also gets to practice positioning the harvester head using the crane.	

OPERATION			
2.1 Basic driving - slalom & gates	• Rehears driving • Improve spatial awareness • Teach steering limits of the machine	The student navigates the harvester around obstacles and through gates. The course needs to be completed without colliding with anything.	
2.2 Basic driving - hinning	• Practice positioning the harvester • Practice navigating cramped spaces	The student drives the harvester to different squares and reverses out again while surrounded by obstacles. The course needs to be completed without colliding with anything	
2.6 Driving while working	• Practice maneuvering in rough terrain • Practice leveling • Practice operating crane while driving • Improve spatial awareness, size and space occupation of crane and head	The student drives a track in rough terrain, positioning the machine and the harvester head along the way. The track is driven multiple times and each pass increases in difficulty.	

TENSTAR simulation

EXERCISES HARVESTER

EXERCISE	PURPOSE	DESCRIPTION	FEATURES
WORKING WITH THE HARVESTER			
3.1 Gripping and cutting	• Teach anatomy and kinetics of the harvester head • Teach how to grip and cut a tree	This exercise teaches the user how to grip and cut trees in a safe manner. Step-by-step instructions and images will teach the user the techniques required to grip and cut. Safety instructions and visualization of the center of gravity informs the user how the tree will fall and how to counter the falling trunk	
3.5 Optimizing route	• Gradually improve users efficiency • Provide an identical work scenario each training session	The user is tasked to cut down trees along a stroke in the forest and cut them to lengths. This exercise has identical conditions each time it is started so the user can measure and compare improvements in their results from their previous run	
CONFIGURABLE SCENARIOS			
4.1 Harvesting	• Allow user to customize an exercise	This is an open-ended exercise to simulate real working conditions. The conditions for the exercises can be configured before starting Forest density, tree type and length for example.	
4.2 Thinning	• Allow user to customize an exercise	This is an open-ended exercise to simulate real working conditions. The conditions for the exercises can be configured before starting Forest density, tree type and length for example.	

CONFIGURABLE SCENARIOS			
Demonstration scenario	• Quickly demonstrate the harvester features	A small forest area where the harvester is set up and ready to work. Good for quick tests or demonstrations.	
Competition exercice	• Test your skills in a time trial	Fell and cut eight trees on the shortest time possible.	