

Assignment 5 – Human-Computer Interaction 2

Note: Exercises are voluntary with the goal of preparing you for the final exam. The sample solution will be presented during the exercise sessions on Monday.

Concepts and coding skills taught in these exercises are relevant for the exam.

Exercise 1: Gesture Recognition Algorithms

In this exercise, we learn some basic gesture recognition algorithms:

1. \$1-Recognizer
2. \$N-Recognizer
3. \$P-Recognizer

Read the literature below and answer the following question for each Recognizer:

1. Which gesture types are recognized and what is not (what is the difference to the other recognizers?)
2. How does the algorithm work? Describe each step.

Literature:

1. Wobbrock J. O. et al.: Gestures without Libraries, Toolkits or Training: A \$1 Recognizer for User Interface Prototypes, UIST'07
2. Wobbrock J.O. et al.: A Lightweight Multistroke Recognizer for User Interface Prototypes, GI'10
3. Vatavu, R. et al.: Gestures as Point Clouds: A \$P Recognizer for User Interface Prototypes, ICMI'12