Interreg North Sea Region SMARTGREEN
European Regional Development Fund
EUROPEAN UNION

SmartGreen – Work Package 5:
New sensors and measuring systems

Objective: Non-contact measurement of crops

Image processing software:

MVTec PRODUCTS | SERVICES & SUPPORT | APPLICATION AREAS
HALCON - THE POWERFUL SOFTWARE FOR YOUR MACHINE VISION APPLICATION

www.mvtec.com/products/halcon

Developed image processing algorithms and sensor analysis:

Link for the developed software – see:
BSc.-Thesis Alma Gramm, annex 1 to 10

Sensors:

Intel® RealSense™ D435 Camera

Miniaturising of the evaluation unit:

Link for installing Halcon on a Raspberry Pi:
https://www.heindl-solutions.com/blog_halcon_on_raspberrypi.htm

Camera carriers:

1. Farmbot
www.farmbot.org

2. Boom waterer

Farmbot control software:

Link for the developed software: BLab Code No. 20231: Crop and plant height monitoring in greenhouses with a Raspberry Pi, FarmBot and Intel RealSense D435 depth camera

Example of a non-contact measurement of crops, data evaluation

Link: Report Jonas Credner, extended WP