Whiznium Starter Kit: Tabletop 3D Laser Scanner

FPGA Option — DIGILENT® *A National Instruments Company*
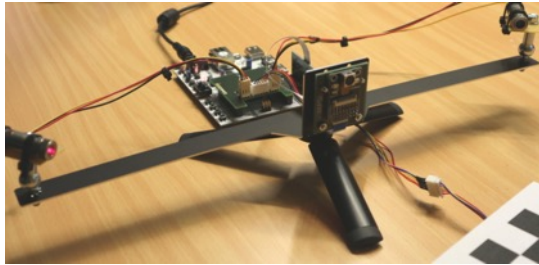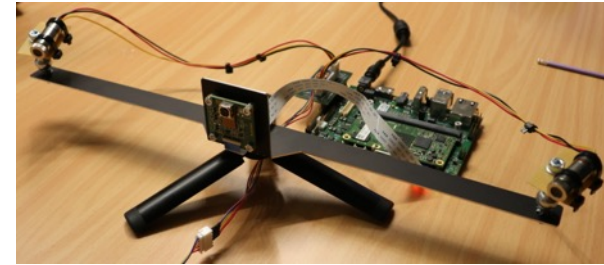
✓ Xilinx Zynq Z7 hardware by Digilent (dual ARM core + PL)

✓ WhizniumDBE project: FPGA-based camera read-out, edge and laser trace detection

✓ WhizniumSBE project: calibration, point cloud calculation, web-based UI, Java/C++ API examples
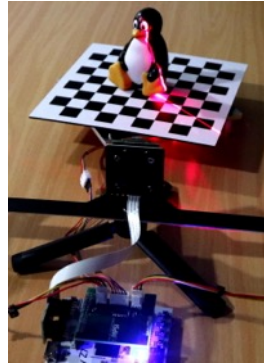
✓ Turntable driven by stepper motor

✓ Tripod-mounted camera + laser holder

✓ OV5640 5MP camera

✓ Two intensity-modulated red line lasers

Embedded Option — Toradex Swiss. Embedded. Computing.

✓ NXP i.MX6 hardware by Toradex (quad ARM core)

✓ WhizniumSBE project: calibration, V4L2 camera read-out, edge and laser trace detection, point cloud calculation, web-based UI, Java/C++ API examples