Calibration instructions for OAK cameras with fisheye lenses

1. First, install the DepthAI calibration Python software:

```
# Optional but recommended: create and activate Python virtual environment
python3 -m venv venv && source venv/bin/activate

# Clone DepthAI repository for calibration
git clone https://github.com/luxonis/depthai.git
cd depthai

# Install DepthAI calibration dependencies
python install_requirements.py
```

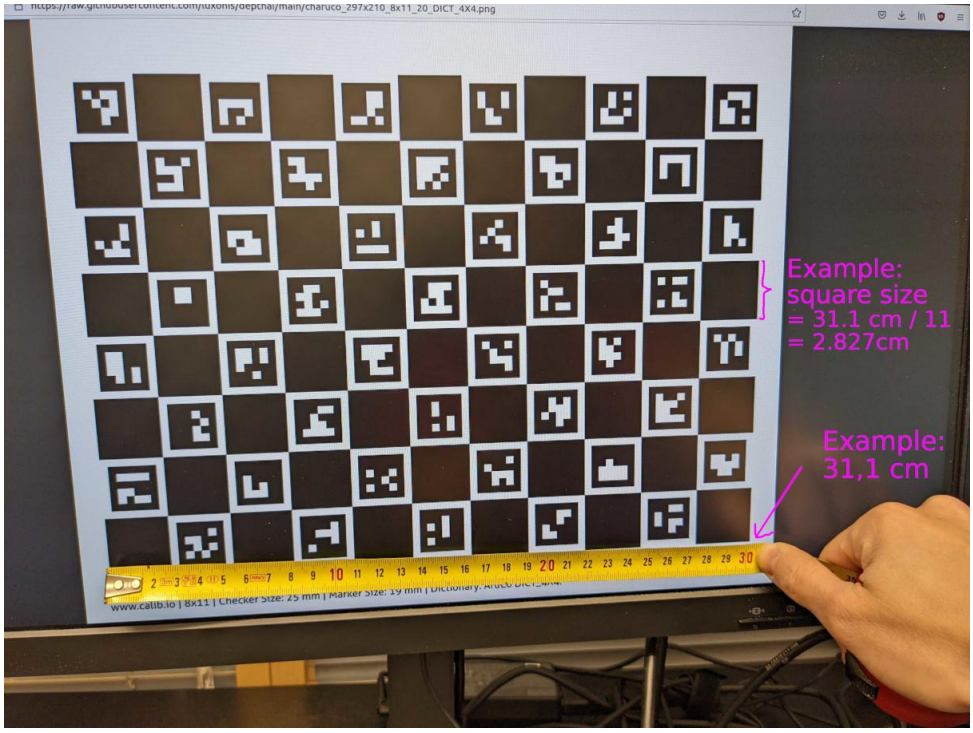
2. In the depthai folder, create a file called `resources/boards/MY-BOARD.json` with the following contents

```
{
        "board_config":
        {
        "name": "BW1098OBC",
        "revision": "R0M0E0",
        "swap_left_and_right_cameras": true,
        "left_fov_deg": 127.0,
        "rgb_fov_deg": 68.7938,
        "left_to_right_distance_cm": 7.5,
        "left_to_rgb_distance_cm": 3.75
        }
}
```

   and check that the blue items match the specifications of your device.

3. Open this calibration pattern on your screen (as large as possible)

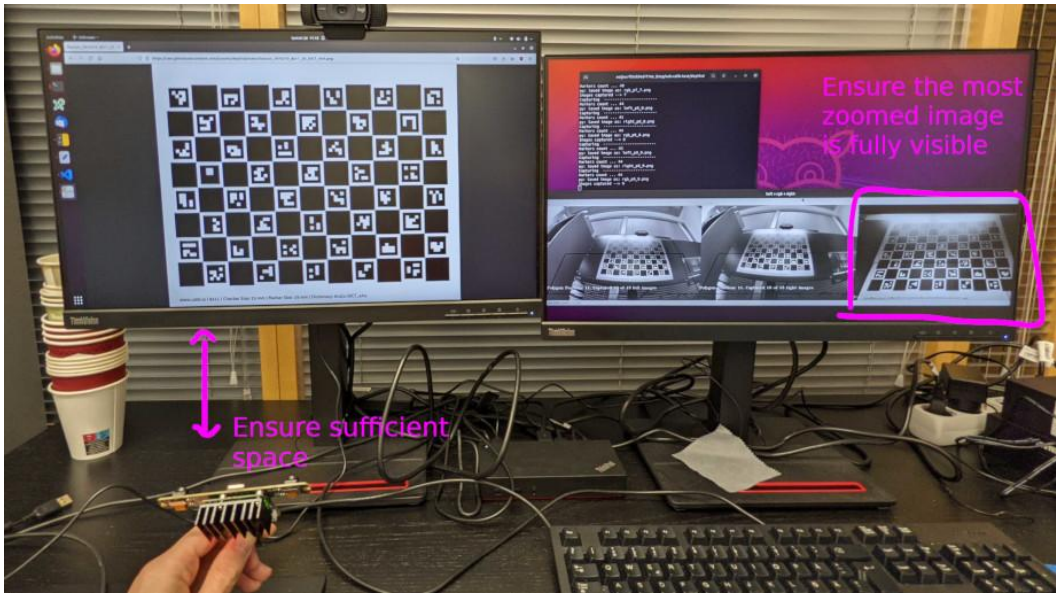
4. Measure the width of the black squares as demonstrated in the picture below (the square size is **2.827cm** in this example)

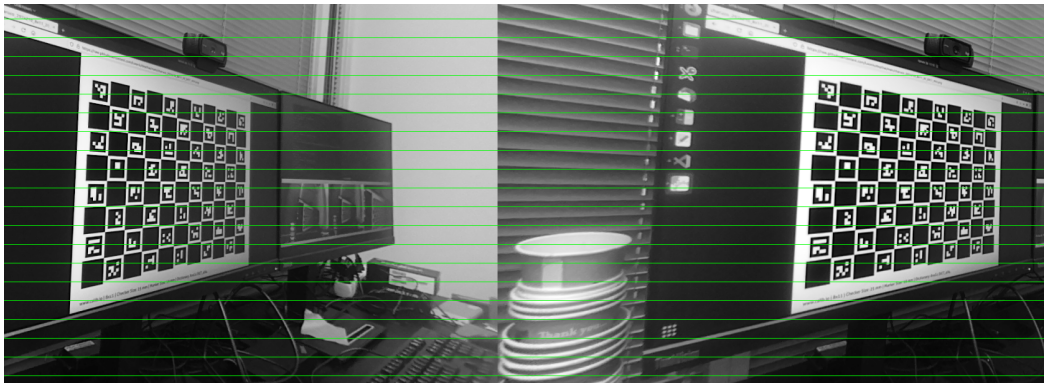


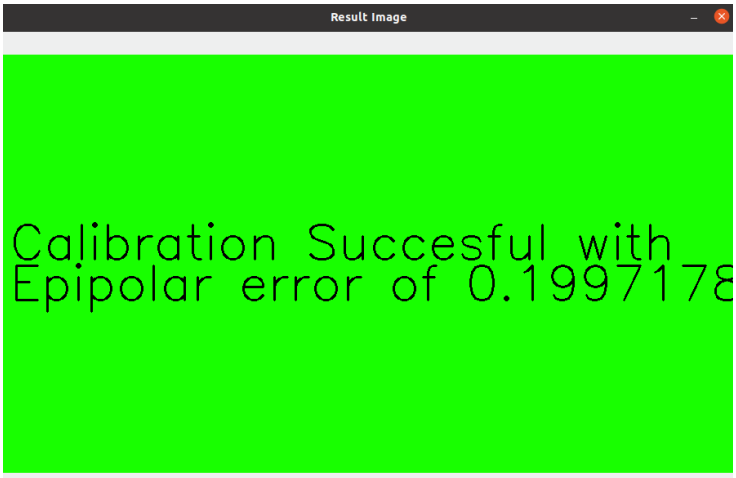
5. Connect the OAK device to an USB port
6. Run the calibration script with the correct square size.

   ```
   python calibrate.py --squareSizeCm 2.827 -brd my-board -db
   ```

   and follow the on-screen instructions (see examples below). The “calibration error” should be less than 0.5. A dual monitor setup is recommended (or a laptop + one external monitor).


Ensure the most
zoomed image
is fully visible
Ensure sufficient
space




Result Image
Calibration Succesful with
Epipolar error of 0.1997178