```
                    ┌─────────────────────────┐
                    │      QMainWindow         │
                    ├─────────────────────────┤
                    │                          │
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```

| MainWindow |
|---|
| - ui |
| - _startUpDialog |
| - _measuringInterface |
| - _screen |
| - _screenGeometry |
| - _videoFPSTimer |
| - _ardSerial |
| - _camObj |
| - _usrOptions |
| - _globalFrame |
| - _globalQPixmap |
| - _camPort |
| - _savePreferences |
| - _fullScreen |
| - _res_Width |
| - _res_Height |
| - _fps |
| - _calibrationInProgress |
| - _liveLensCorrection |

| |
|---|
| + MainWindow() |
| + ~MainWindow() |
| + init() |
| + receiveData() |
| - resizeWindowToScreenSize() |
| - resizeLabelToWindow() |
| - centerWindow() |
| - loadGUISettings() |
| - saveGUISettings() |
| - defaultCamOpt() |
| - defaultUIVals() |
| - setOptionsButtons() |
| - setMeasurementButtons() |
| - drawCalibrationLines() |
| - listenToKeyPress() |
| - switchAlgToGantry() |
| - captureImage() |
| - on_focusButton_pressed() |
| - on_actionFull_screen |
| _triggered() |
| - on_actionCenter_window |
| _triggered() |
| - on_actionSet_to_defaults |
| _triggered() |
| - on_modeButton_pressed() |
| - on_positionCalibrationButton |
| _pressed() |
| - on_focusSlider_sliderMoved() |
| - on_zoomSlider_sliderMoved() |
| - on_saturationSlider |
| _sliderMoved() |
| - on_brightnessSlider |
| _sliderMoved() |
| - on_contrastSlider_slider |
| Moved() |
| - on_contrastOptionsBtn |
| _pressed() |
| - on_brightnessOptionsBtn |
| _pressed() |
| - on_saturationOptionsBtn |
| _pressed() |
| - on_zoomOptionsBtn_pressed() |
| - on_focusOptionsBtn |
| _pressed() |
| - on_captureButton_pressed() |
| - on_measureButton_pressed() |
| - on_distortionButton |
| _pressed() |
| - on_lensCorrectioncheckBox |
| _stateChanged() |
| - on_actionEnumerate |
| _Ports_triggered() |
| - on_actionAttempt_to |
| _connect_triggered() |
| - setRingLighGUI() |
| - on_actionCheck_connection |
| _status_triggered() |
| - on_gantryUpButton_pressed() |
| - on_gantryDownButton |
| _pressed() |
| - on_gantryLeftButton |
| _pressed() |
| - on_gantryRightButton |
| _pressed() |
| - on_ringLightOnButton |
| _pressed() |
| - on_ringLightOffButton |
| _pressed() |
| - on_ringLeftUpBut_pressed() |
| - on_ringLeftDownBut |
| _pressed() |
| - on_ringRightUpBut_pressed() |
| - on_ringRightDownBut |
| _pressed() |
| - on_actionDisconnect |
| _Serial_triggered() |
| - on_actionRe_Establish |
| _the_connection_triggered() |