

Single and Multi-axis Detector Supports

Features of the detector support

The detector support is available in 3 different versions with the following properties:

- Precise movement along the beam (travel range can be determined on request)
- Linear encoders with reference marks for accurate positioning of the detector
- Redundant end switches for fail-safe operation
- Mechanical hard stops on the horizontal drive
- Motors with solenoid actuated brakes for power failure conditions
- High speed operation on the horizontal drive of more than 3 cm/s
- The support can be adapted to different detector sizes and different types of detectors. Even the largest available detectors fit the support; max load approx 400 kg.
- The detector support can be used in combination with many different goniometer and end-stations designs
- Extremely stiff and stable support structure through oversized robust stages and support brackets.
- Small footprint inside the hutch



The **1 axis detector support** enables a positioning of the detector along the beam. A travel range up to 1 m has been built to date. Longer travel ranges are available on demand.

The **3 axis detector support** is additionally equipped with two vertical stages to lift and angle the detector. As shown on the picture, a two-theta motion is achieved by a combined motion of the vertical stages. An adjustment platform underneath the detector mounting brackets enables a manual angular adjustment of the detector to the beam direction.

The **4 axis detector support** (see picture above) enables a further horizontal movement of the detector perpendicular to the beam direction for the cases where different setups are required to follow the beam horizontally. Furthermore we would be able to integrate a rotation around the vertical axis as well.

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