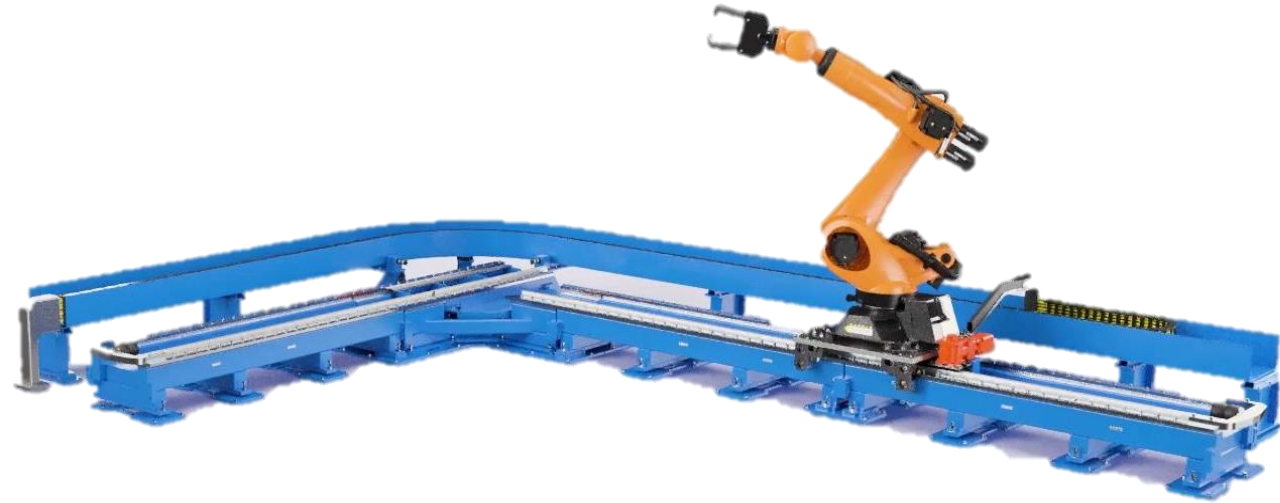


SEVENTH AXIS SPECIAL SOLUTIONS

FUNCTIONAL DEPICTIONS | MAY2021



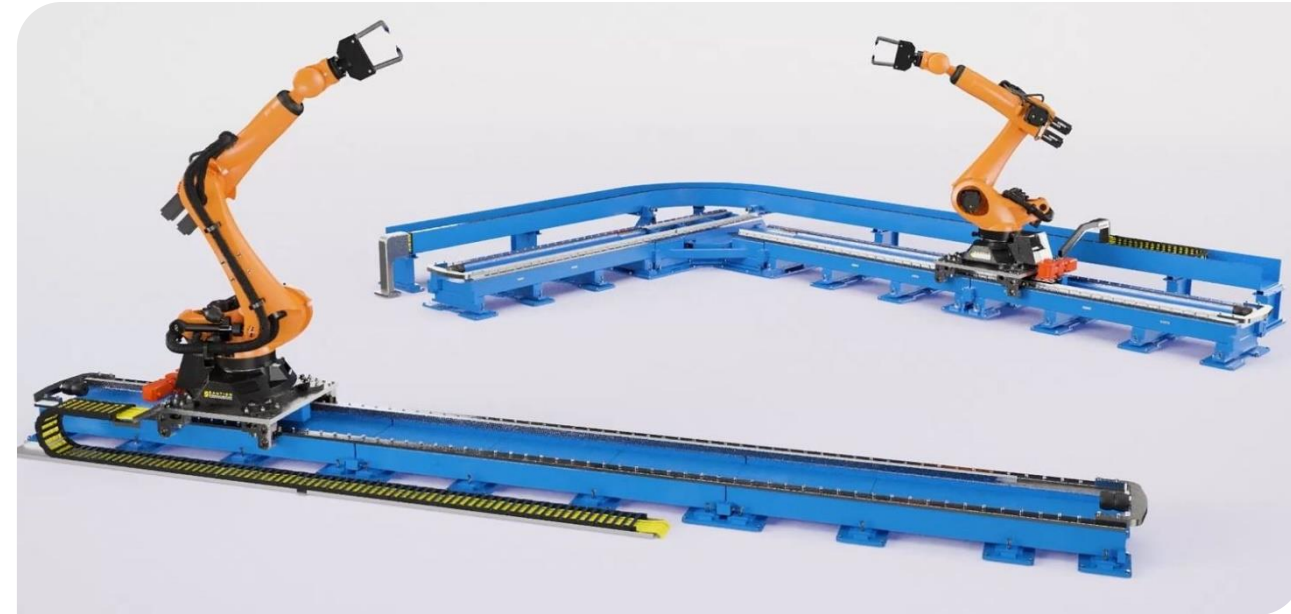
60 years. Experience. Expertise.

Our customers trust in our expertise in body-in-white as a pulse maker for automation solutions.

The robustness and accuracy with an extremely low and compact design are some of the strengths of our **Seventh axis series**.

We are in the process of expanding our product range to enable useful modules and solutions. An example is the 8th axis (seventh axis with turning station).

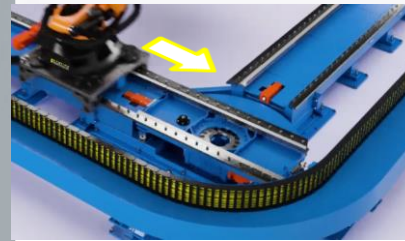
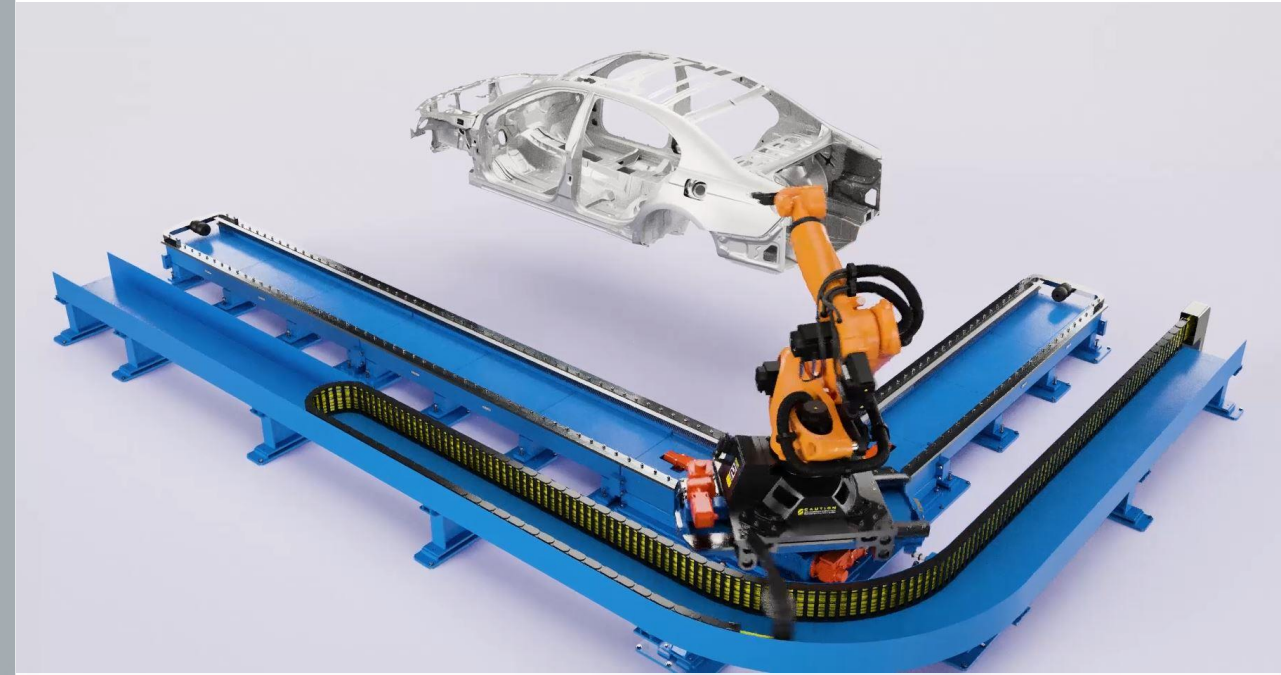
Below are a few Application examples, also as a suggestion, for your Body in White planning.



EIGHT AXIS

- 2 AXIS
- 1 EDH – TURNTABLE
OUTPUT ANGLE UP TO 120°
- 2 ROBOTS

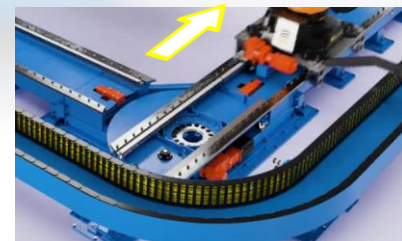
This PATENTED solution combines the know-how in Indexing Turntables and Transport Technology to extend the Robot working range and its flexibility. This Module is extremely useful in the next generation Factory, where the production of multiple models demand more and more complex tasks and workflows.



Step 1 – Robot slides from Axis 1 onto rotary table



Step 2 – Table indexes the Robot 90°

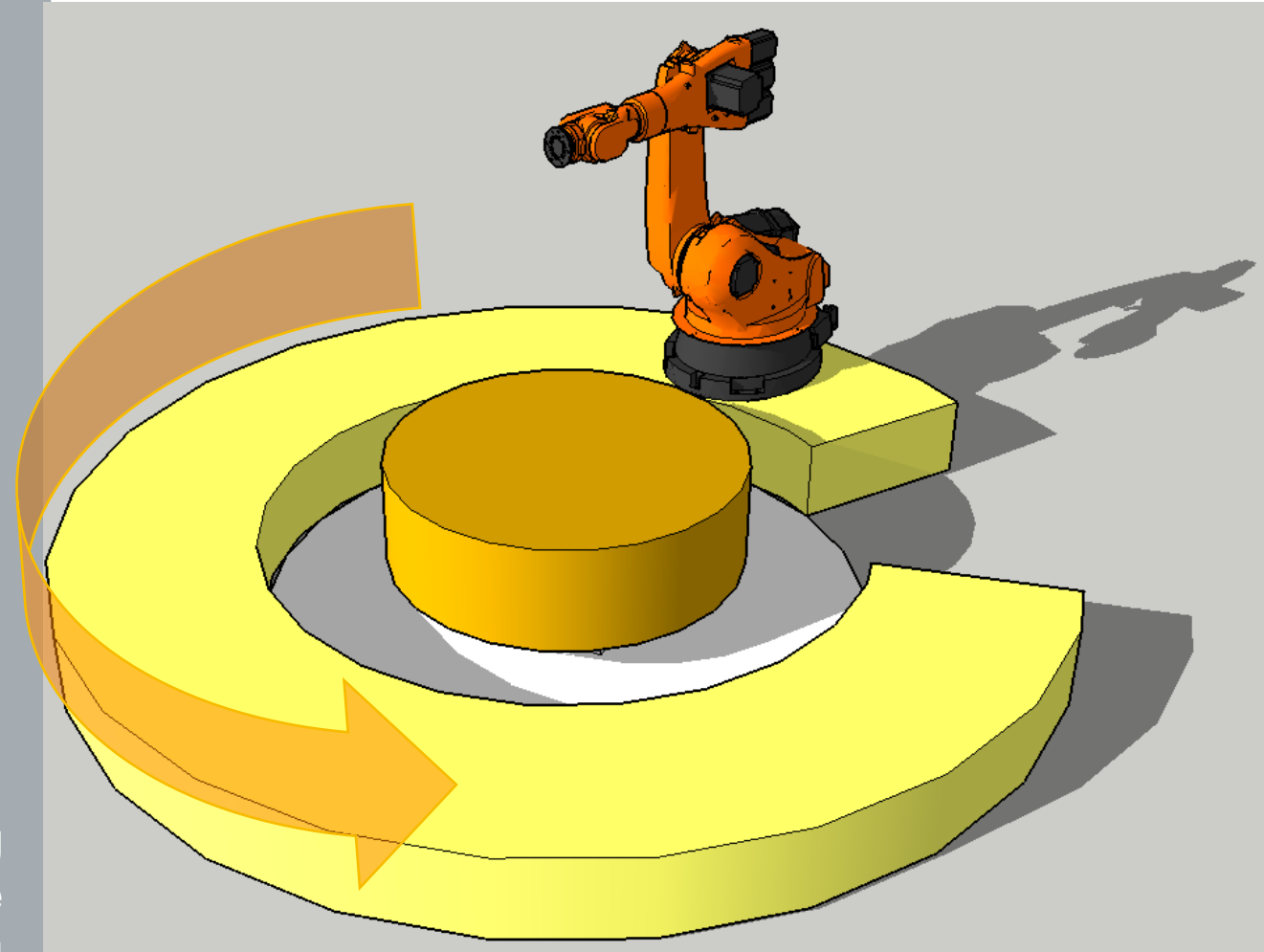


Step 3 – Robot slides onto Axis 2.

ROBOT „IN RING“

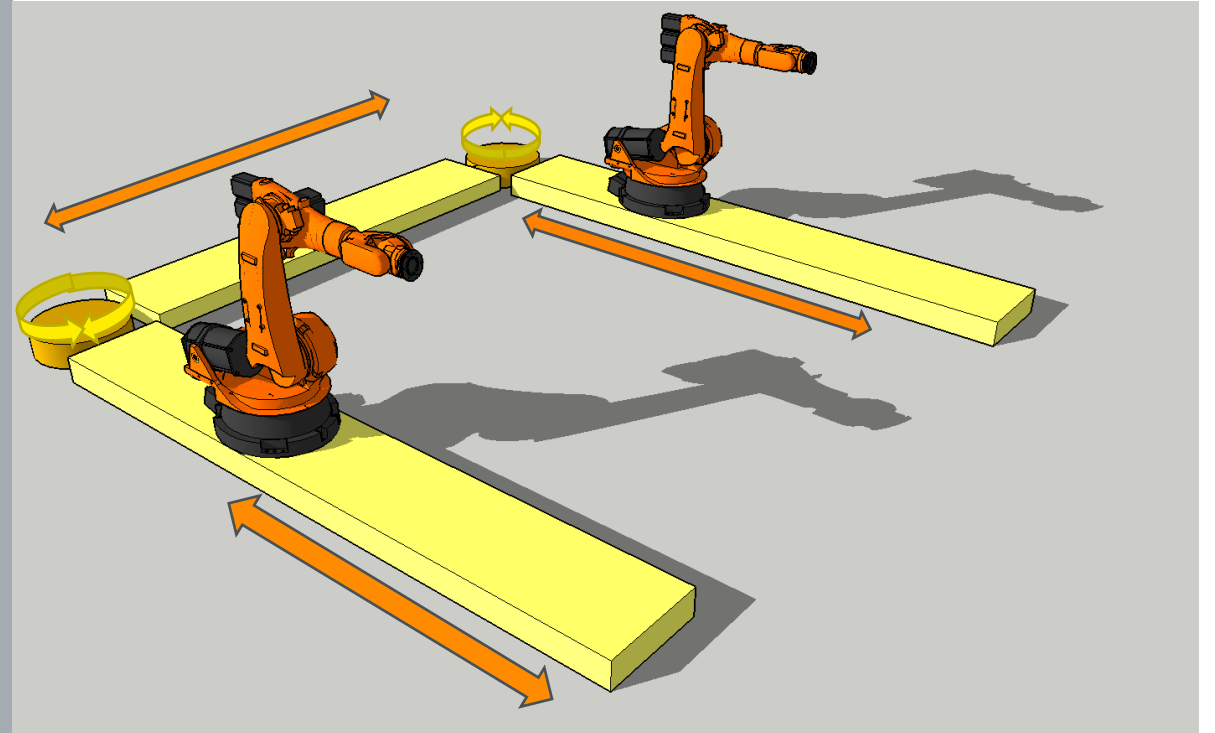
- 1 RING-AXIS
- 1 – 2 ROBOTS

Here the traditional seventh axis is replaced by a "ring axis" and the workpiece is placed in the middle of the axis (e.g. by a TÜNKERS AGV), so that all machining angles can be reached and more complex contours are feasible.



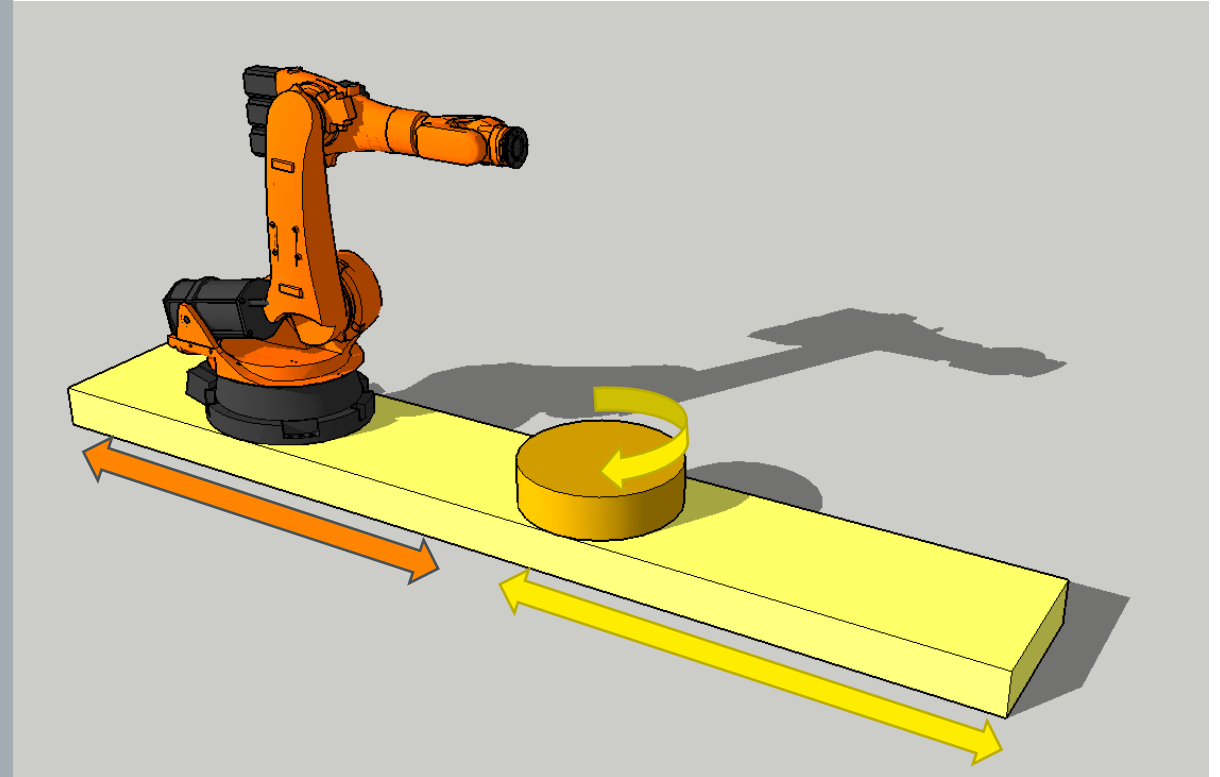
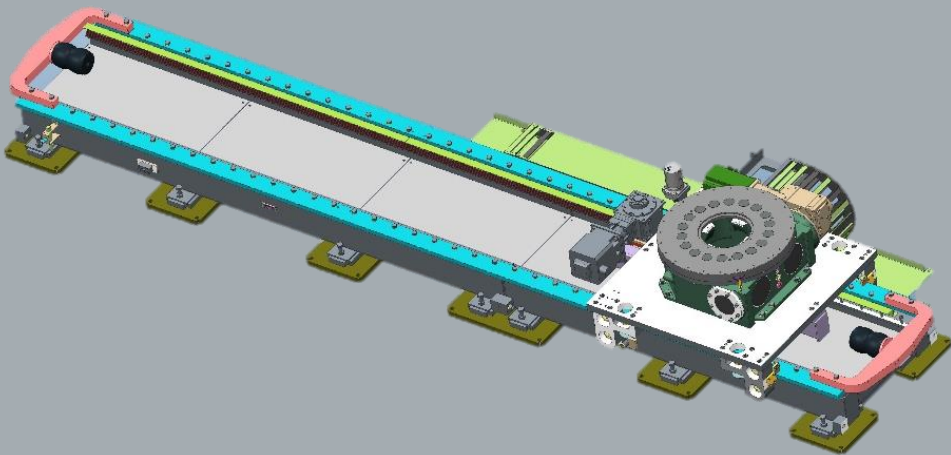
SEVENTH AXIS IN "U - SHAPE"

- 3 AXES
- 2 EDH ROTARY TABLES
- 2 ROBOTS
- OUTPUT ANGLE ROTARY TABLE OF UP TO 120 °



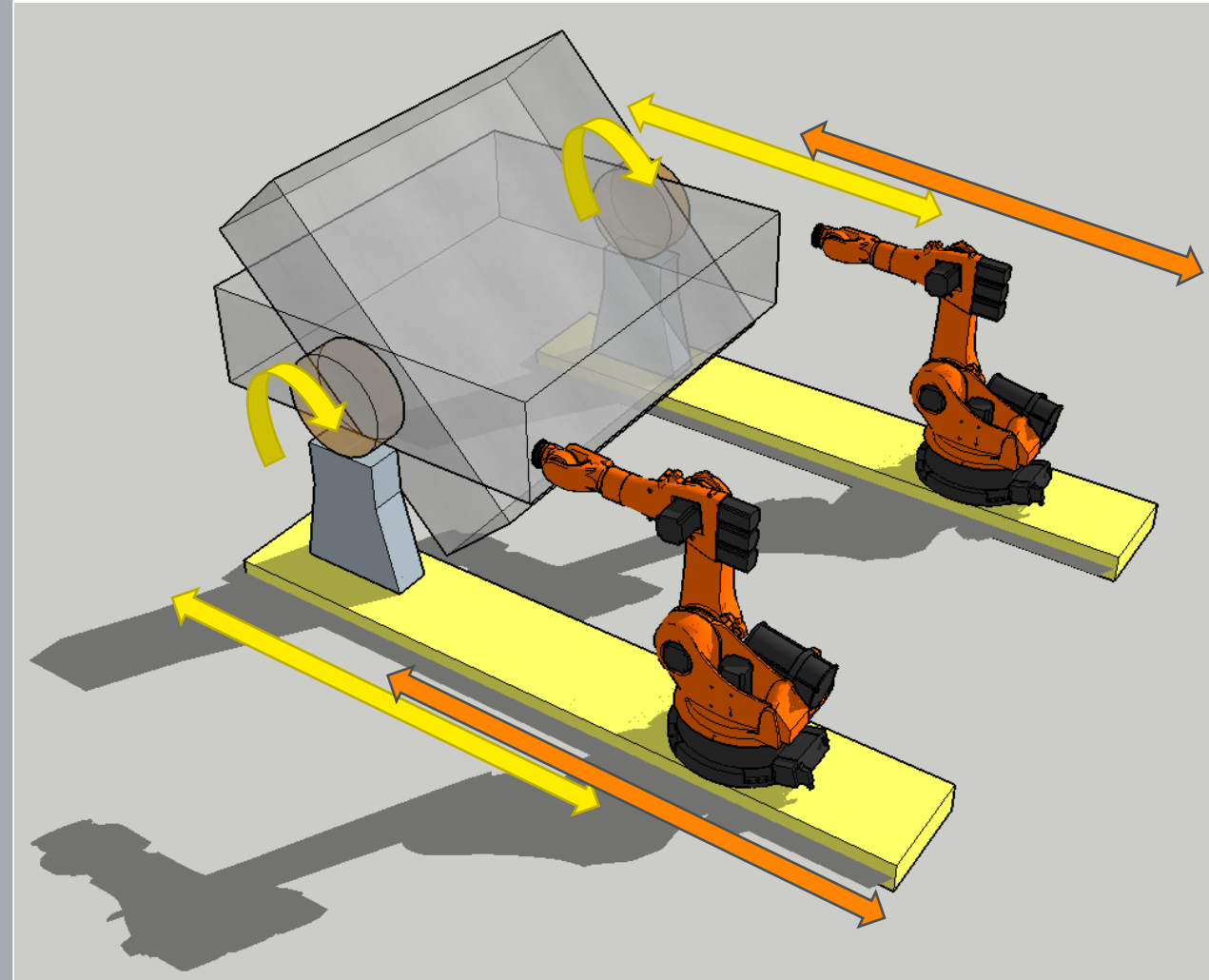
SEVENTH AXIS WITH ROTARY TABLE

- 1 AXIS
- 1 EDH - ROTARY TABLE
- 1 ROBOT



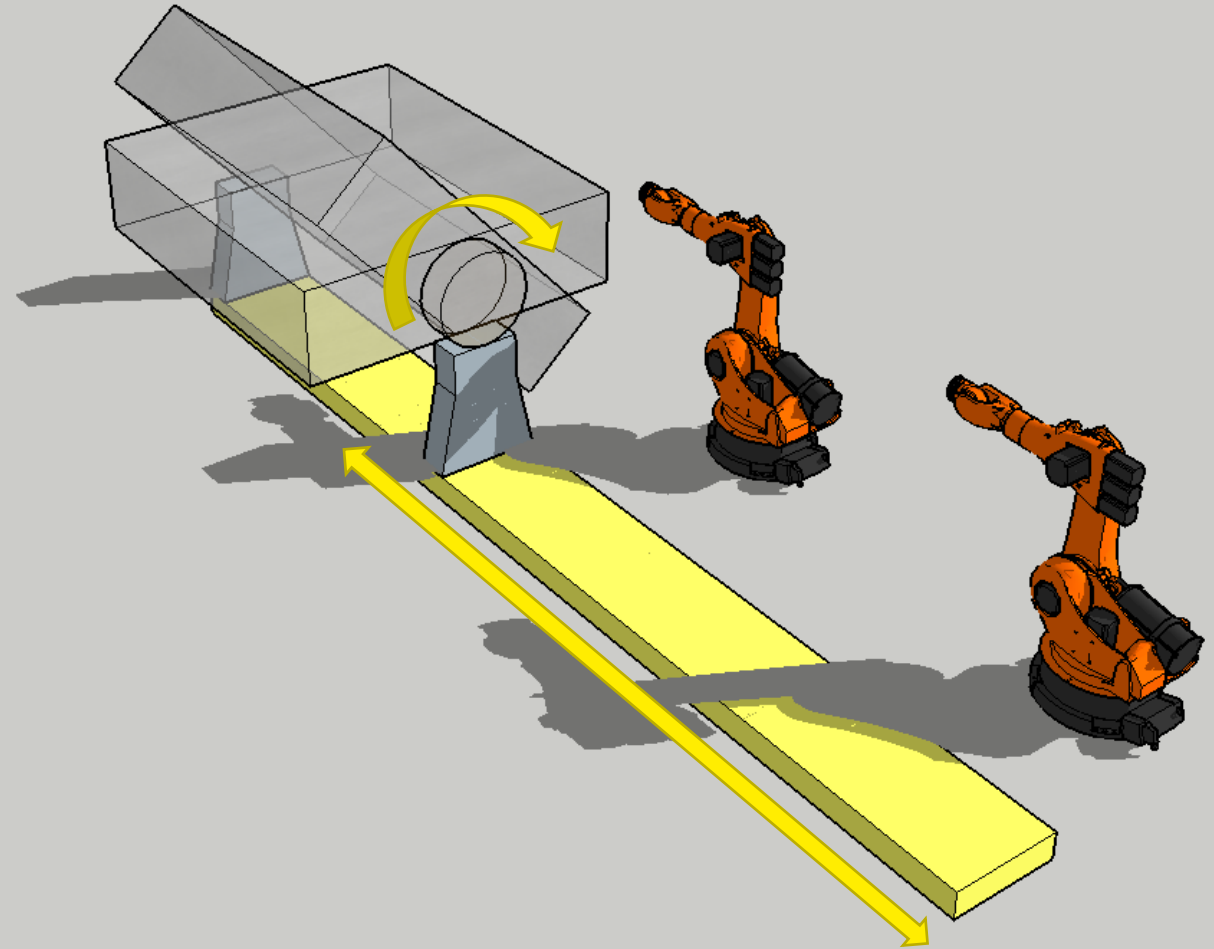
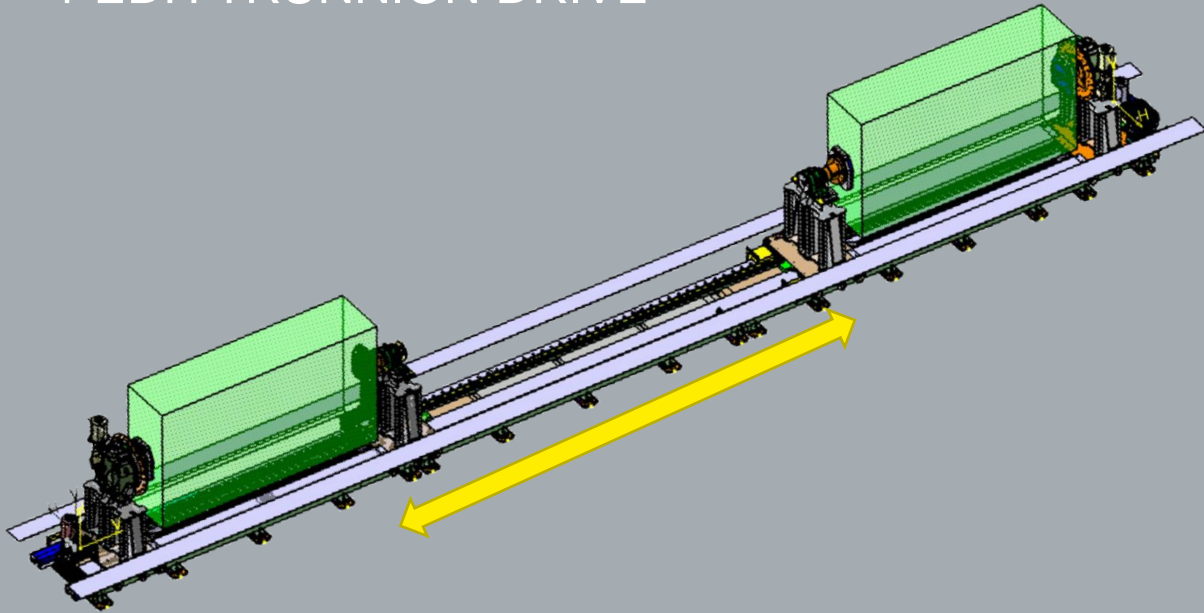
SEVENTH AXIS WITH "SLIDING TRUNNION"

- 2 AXES
- 2 ROBOTS
- 2 EDH TRUNNION DRIVES



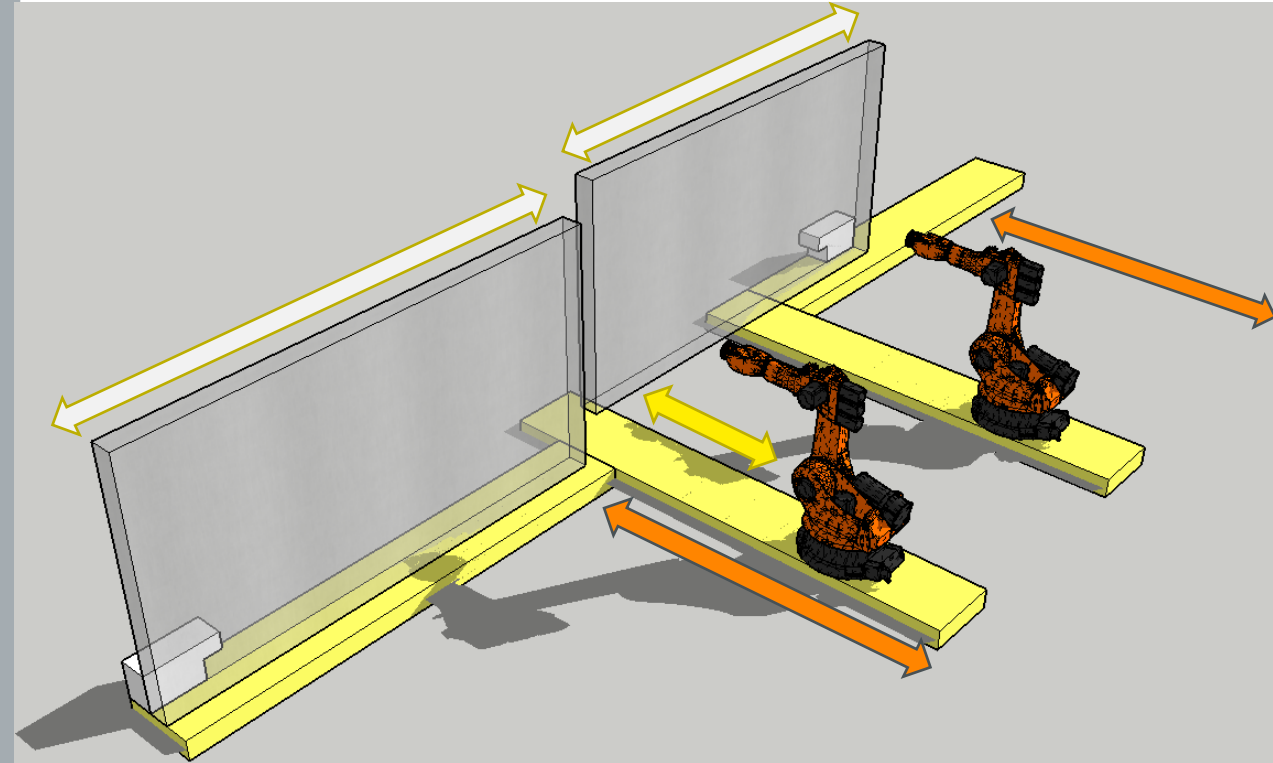
SEVENTH AXIS WITH "SLIDING TRUNNION"

- 1 AXIS
- 1 TENDER-CARRIER
- 1 EDH TRUNNION DRIVE



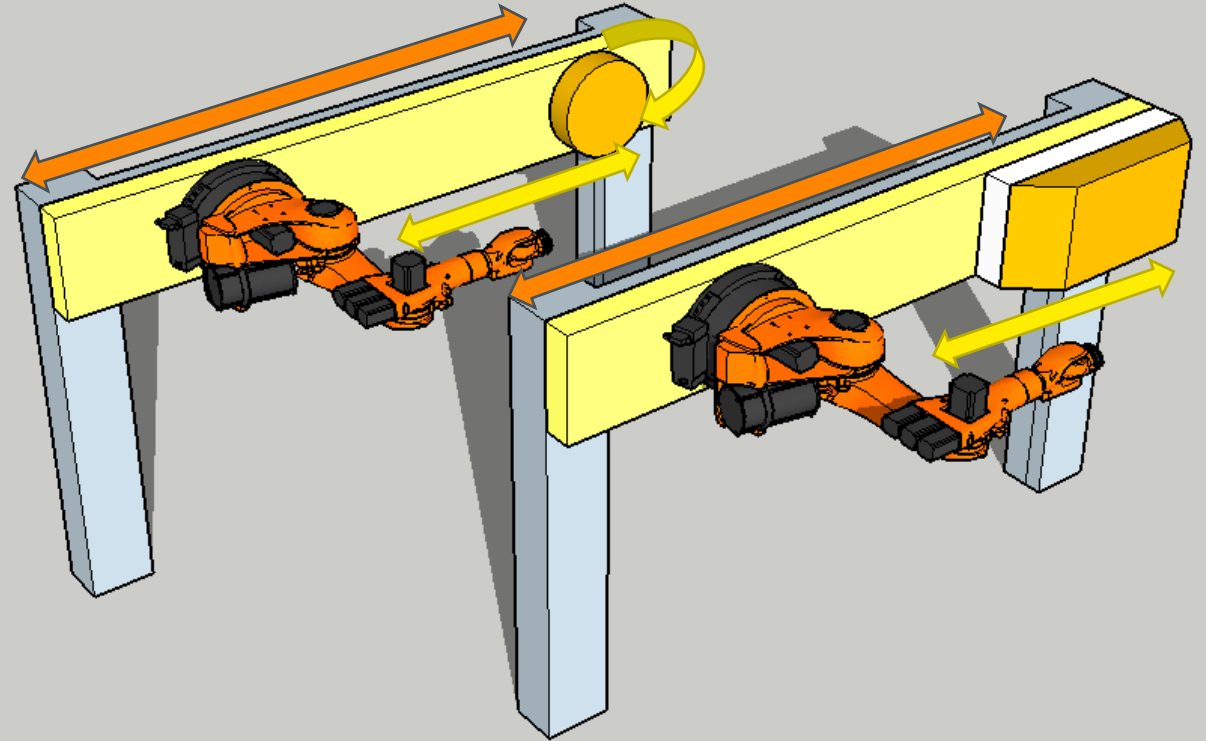
SEVENTH AXIS "MULTITOOLING / FRAMER"

- 4 AXES
- 2 ROBOTS
- 2 TOOL SLIDING UNITS



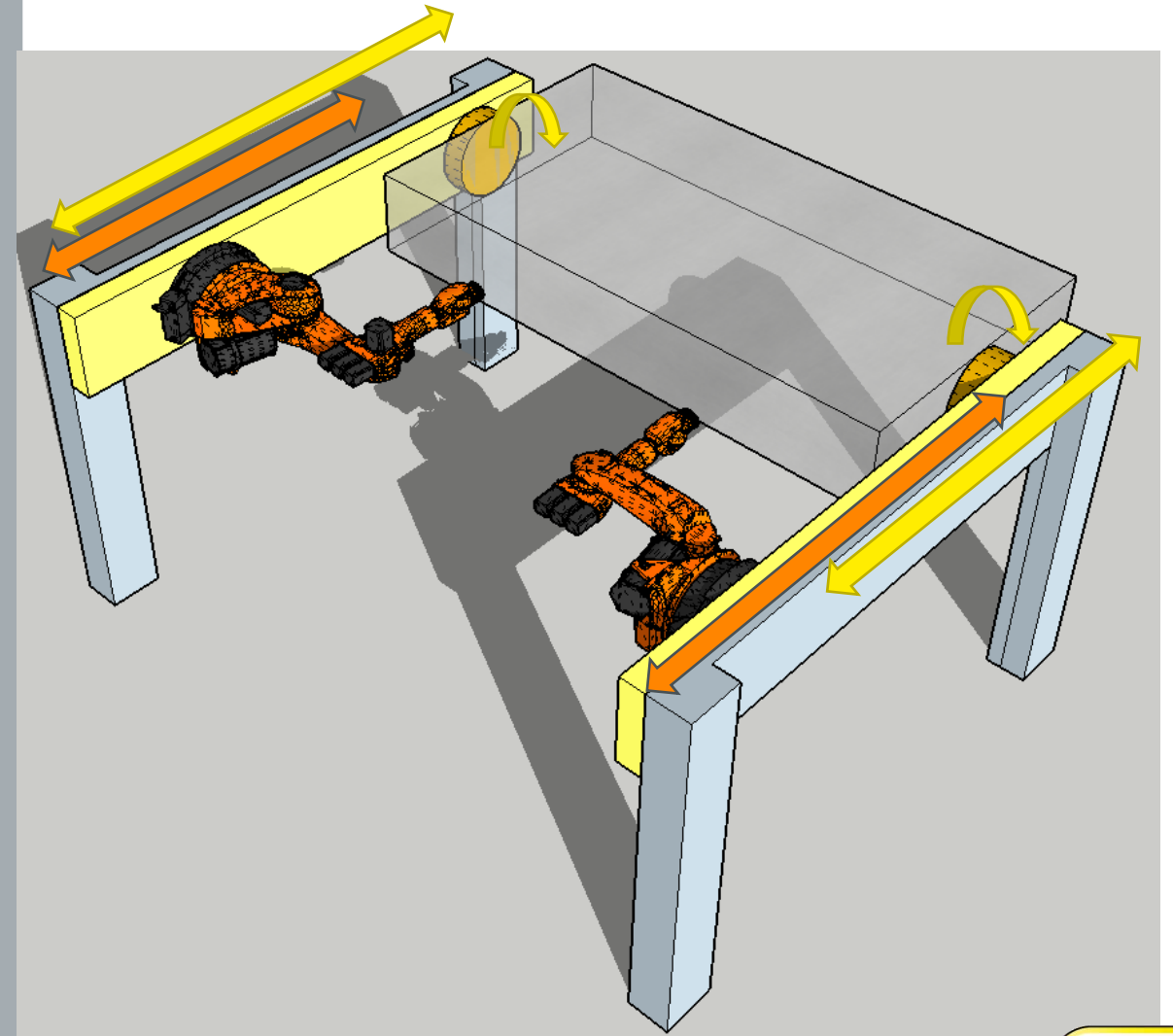
SEVENTH AXIS AS PORTAL AXIS

- 1 AXIS
- 1 ROBOT
- OPTIONAL TRUNNION WITH 1 EDH OR 1 TOOL



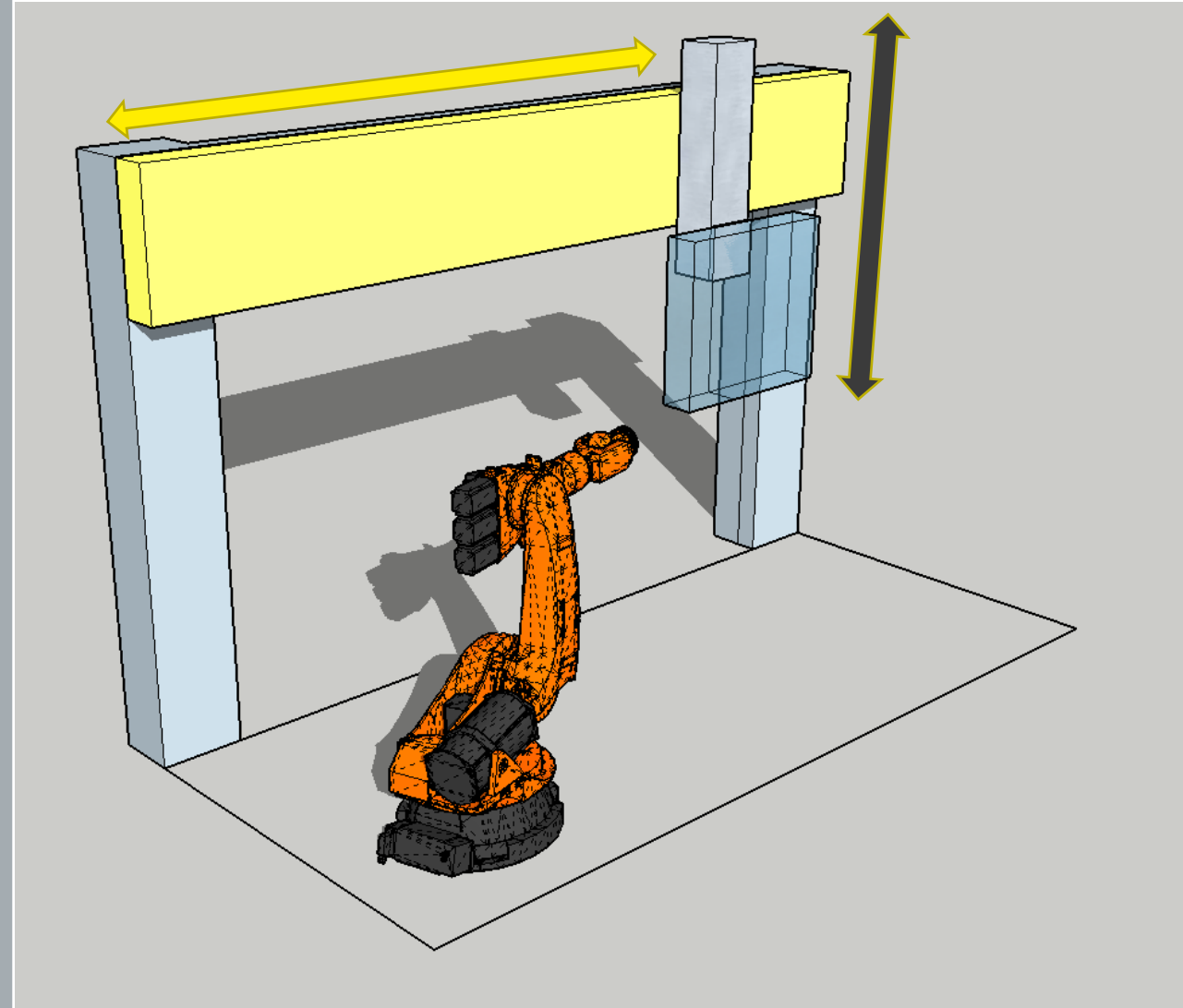
SEVENTH AS PORTAL AXIS WITH TRUNNION

- 2 AXES
- 2 ROBOTS
- TRUNNION WITH 2 EDH



SEVENTH AS A PORTAL AXIS

- 1 AXIS
- 1 OR 2 INDEX CAM LIFTER



Thank you for your
attention.

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