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HTL Best Practice – Werkstättenunterricht (Workshop)

HTL Wolfsberg
Higher College for Engineering
Höhere Technische Bundeslehranstalt

Overview



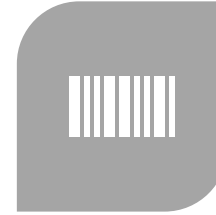
WORKSHOPS AND CLIL



PROJECT „AUGMENTED
REALITY & CLIL @ HTL
WOLFSBERG“



TRANSLATION PROJECT



QR-CODE



MODELLING-SAMPLE

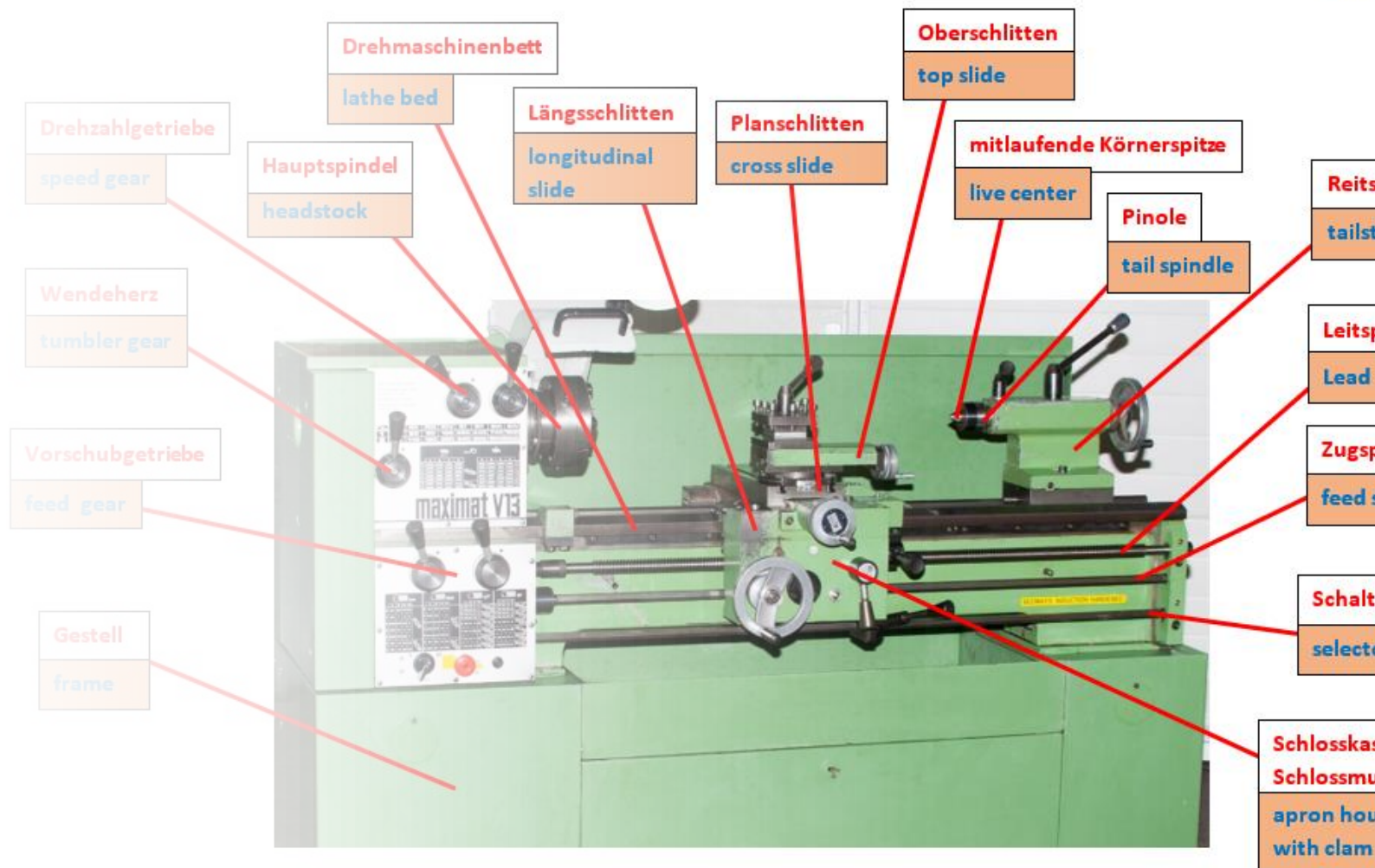


FUTURE

Workshop and CLIL

Aufbau einer konventionellen Spitzendrehmaschine

Setup of a conventional turning machine





Project „Augmented reality & CLIL @ HTL Wolfsberg“

What is the lathe and what does it do?

The lathe is a chipping machine tool. It's used to machine cylindrical workpiece. While the workpiece is spinning ("turning") chips are taken off with a lathe chisel ("tool").

What are the most important parts of this machine?

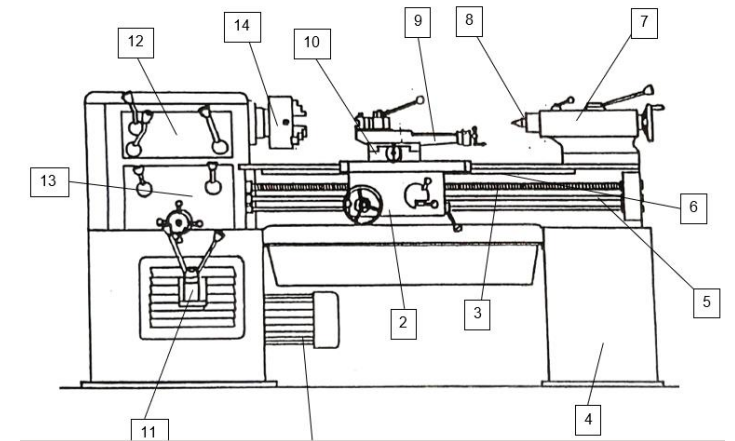
The most important parts of the lathe are:

- **Headstock:** The main resides headstock in the gearbox. It controls the revolution speed of the main spindle. The lathe chuck is attached on there.
- **Trailstock:** The trail stock is clamped on the lathe bed. Centering tips, drill-tools and tracking centre (used to support long parts), can be put in the tool cane of the tailstock-quill.

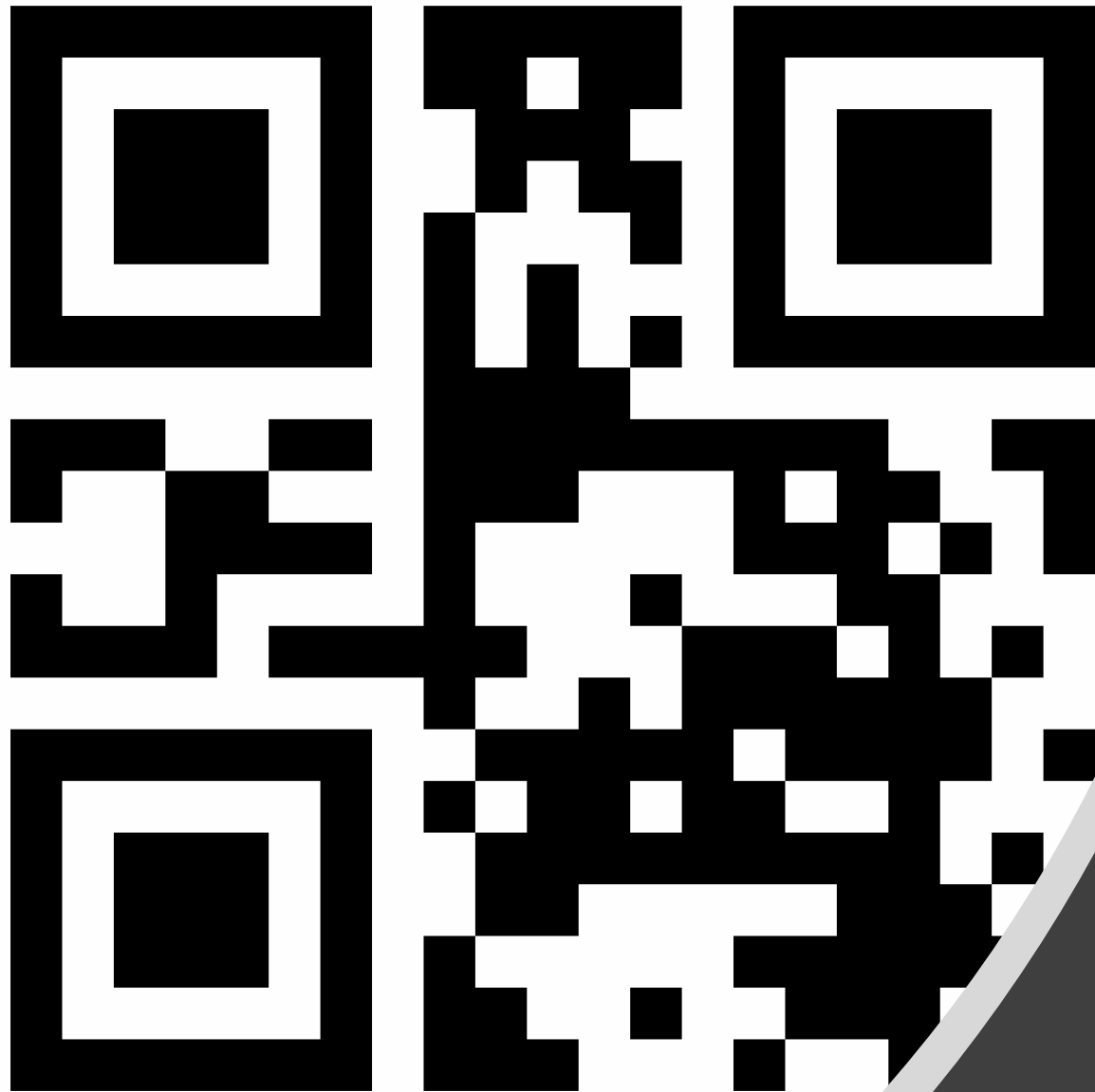


Translation of the most important parts:

1	Electric motor	E-Motor
2	Lock case with lock nut	Schlosskasten mit Schlossmutter
3	Guide screw	Leitspindel
4	Machine frame	Maschinengestell
5	Draw spindle	Zugspindel
6	Bed ways	Maschinenbett
7	Loose headstock	Reitstock
8	Spindle sleeve with centre punch	Pinole mit Körner
9	Top slide	Oberschlitten
10	Crass slide	Planschlitten
11	Lever with speed gear	Hebel für Drehzahlgetriebe
12	Poppet for main spindle	Spindelstock für Hauptspindel
13	Feed gear	Vorschubgetriebe
14	Lathe chuck	Drehbank-Spannfutter



Translation Project



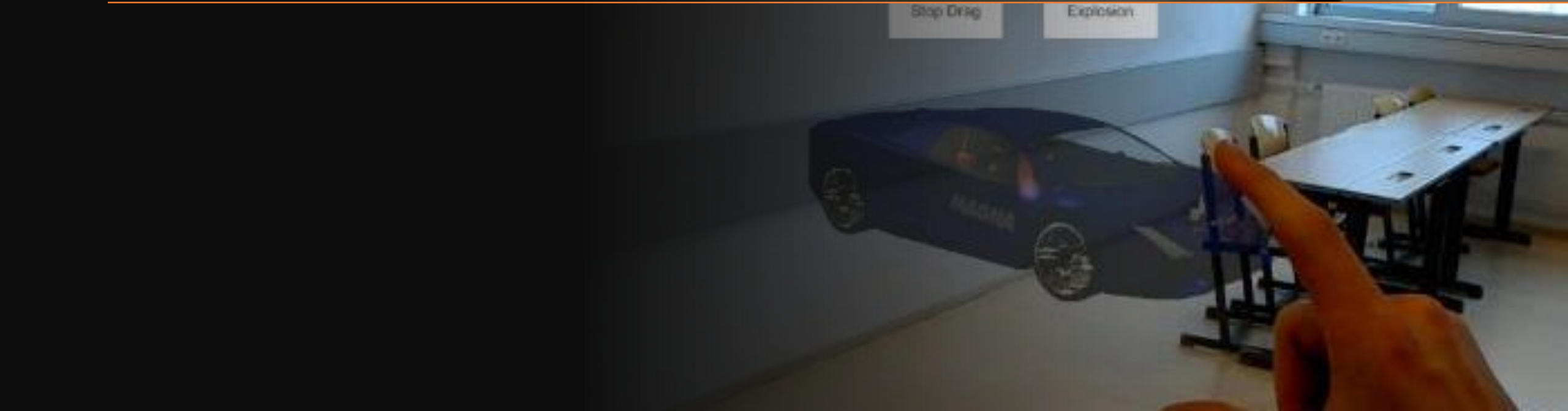
Creating QR-
Code

Modelling sample: Milling machine





Diploma-Thesis project example of AR





Future

- Finish the first machine „lathe“ → AR
- Develop a project for all machines in the workshops
- Present the findings to our partners
- Develop new CLIL-projects with our students

Questions?



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