

<b>HTL Leoben</b>	<b>HTL Leoben</b> Higher Federal Technical College of Industrial Engineering – Information technology and smart production	<b>Diploma Exam</b>
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## DIPLOMA THESIS Documentation

Author(s)	Bacher Fabian, Dalipovic Nino, Gutmann Florian, Wolfgruber Bastian
Form, academic year	5BHWIN, 2025/26
Topic	Improving Basketball Efficiency through Video Analysis
Co-operation partners	HTL Leoben

Assignment of tasks	<p>Gutmann</p> <ul style="list-style-type: none"> <li>• Backend</li> <li>• Database</li> <li>• Interaction with frontend</li> <li>• Statistical analysis</li> </ul> <p>Dalipovic</p> <ul style="list-style-type: none"> <li>• Frontend</li> <li>• User interface (select/create players, various displays)</li> </ul> <p>Wolfgruber</p> <ul style="list-style-type: none"> <li>• Video analysis (actual trajectory)</li> <li>• Detection of the ball's trajectory</li> <li>• Comparison and evaluation between target and actual</li> </ul> <p>Bacher</p> <ul style="list-style-type: none"> <li>• Video analysis (target trajectory)</li> <li>• Detection of the basket / release</li> <li>• Calculating and visualizing the ideal flight parabola (target trajectory)</li> </ul>
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Realisation	Development of a system by June 2026 that automatically analyzes basketball shots and helps players measurably improve their shooting technique through visual feedback and statistics.
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Results	To measurably improve basketball players' shooting technique using an intelligent video and analysis system.
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Illustrative graph, photo (incl. explanation)	No graphics.
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Participation in competitions Awards	No
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Accessibility of the Diploma Thesis	Library, HTL Leoben
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Approval (Date / Signature)	Examiner	Head of College
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