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INSTITUTE OF AUTOMATION
AND COMPUTER SCIENCE



BRNO FACULTY
UNIVERSITY OF MECHANICAL
OF TECHNOLOGY ENGINEERING

uai.fme.vutbr.cz

Topic 2: Automation Studio Introduction

Course : Control Theory I (VA1-A 18/19Z)

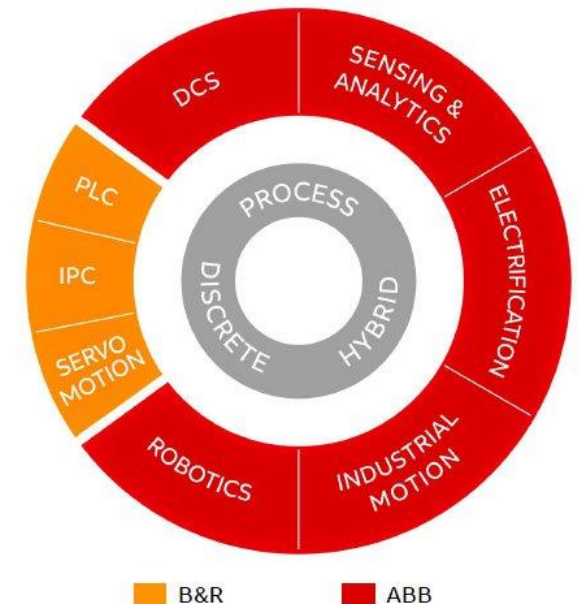
Teacher : Ing. Roman Parák (Roman.Parak@vutbr.cz), A1/0642

Location : A1/0636

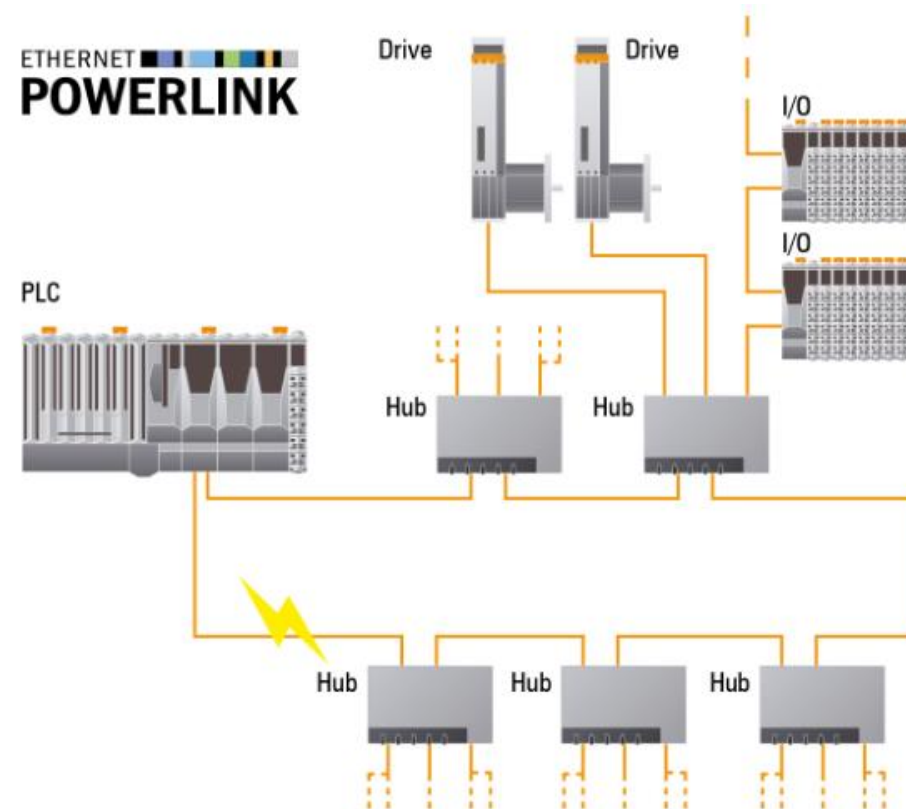
Founded in 1979, B&R Industrial Automation GmbH., has its R&D and production headquarters in Eggelsberg, Austria, near Braunau in the state of Upper Austria.

As a manufacturer of automation technology, the company specializes in machine and factory control systems, HMI and motion control. In addition to scalable complete solutions, B&R also offers individual components. The product range is oriented toward machinery and equipment manufacturing, and the company is also active in the field of factory and process automation.

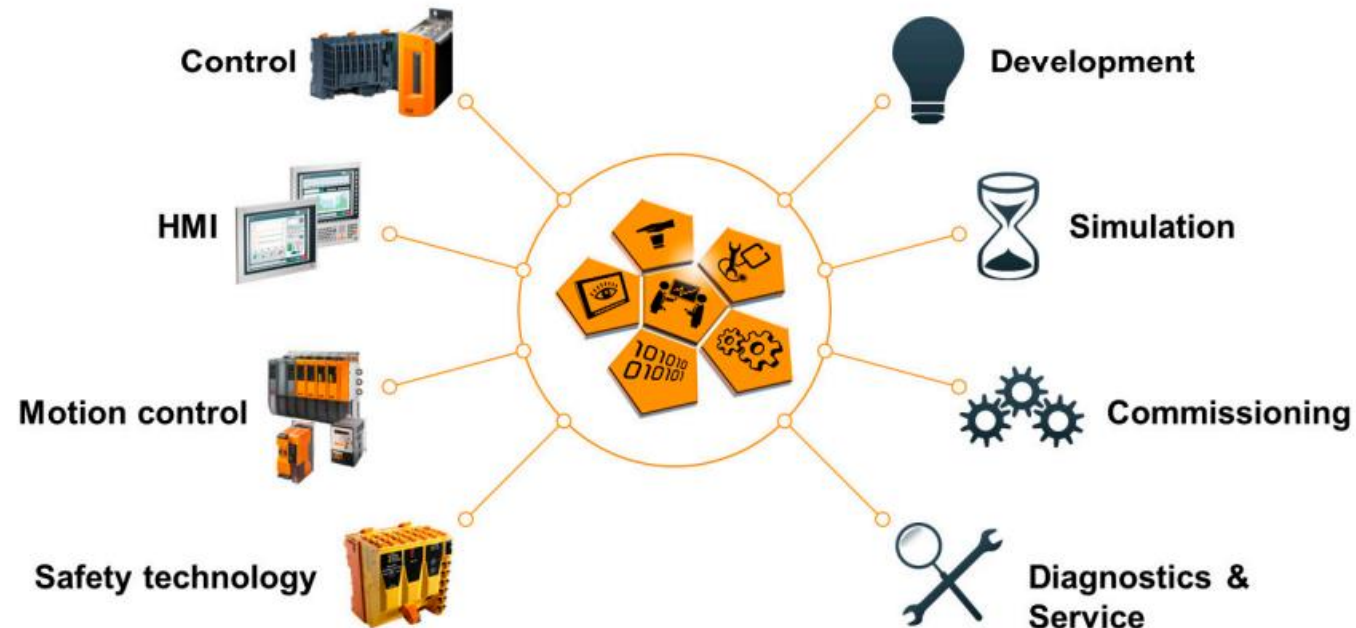
In July 2017, the company was acquired by the Swiss ABB Group.



A programmable logic controller (PLC) or programmable controller is an industrial digital computer which has been ruggedized and adapted for the control of manufacturing processes, such as assembly lines, or robotic devices, or any activity that requires high reliability control and ease of programming and process fault diagnosis.



Automation Studio is the project development environment used specifically for B&R automation components. This includes controllers, motion control components, safety modules and HMI applications. Clearly organized project structuring options and the ability to manage multiple configurations ensure that teams can work together efficiently and all machine variants can be represented in a single project.



Automation Runtime is a deterministic real-time operating system that serves as the software platform for B&R's entire product range. Automation Runtime provides services for freely configuring and troubleshooting the target system and for executing programs.

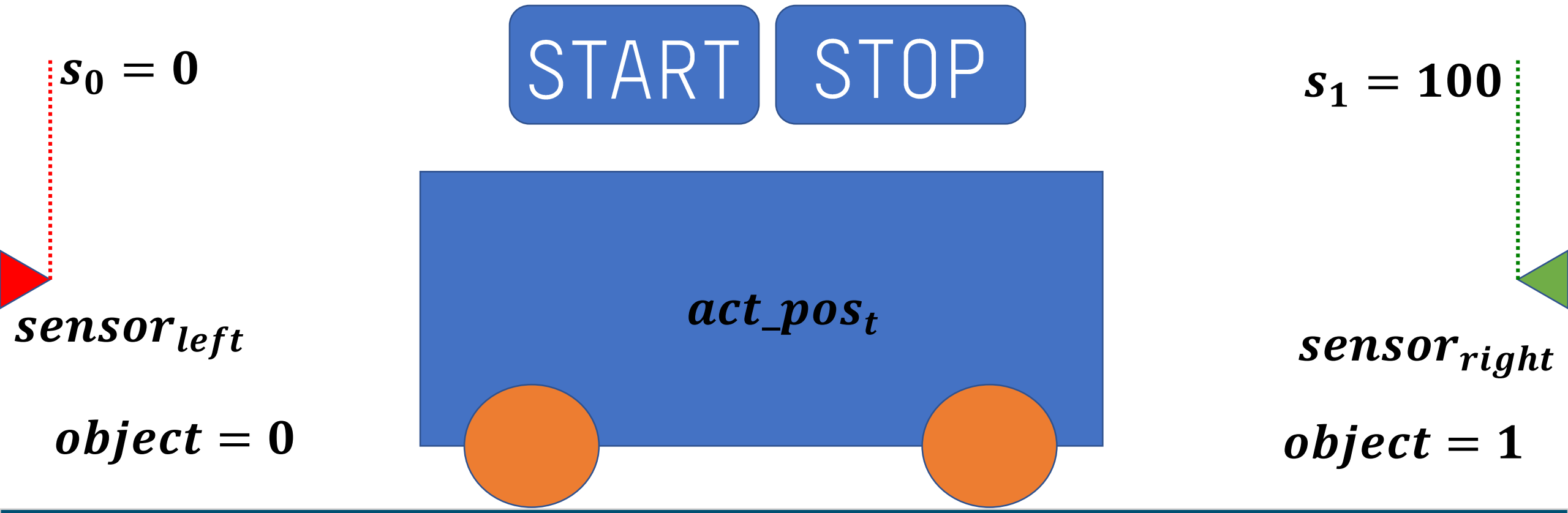
In addition, Automation Runtime features a modular structure, configurability and the ability to quickly execute applications repeatedly within a precise time frame. This makes it possible to achieve optimal product quantities while guaranteeing quality and precision at runtime.



Example: Truck Driving

$initial_pos_t = 0$

Cyclic #4 – [100ms]



Automation Studio Training

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Date: 10.10.2018

Time: 14:00 pm – 18:00 pm

Focus: motion control, control PLC and PC, programming C/C++, etc.

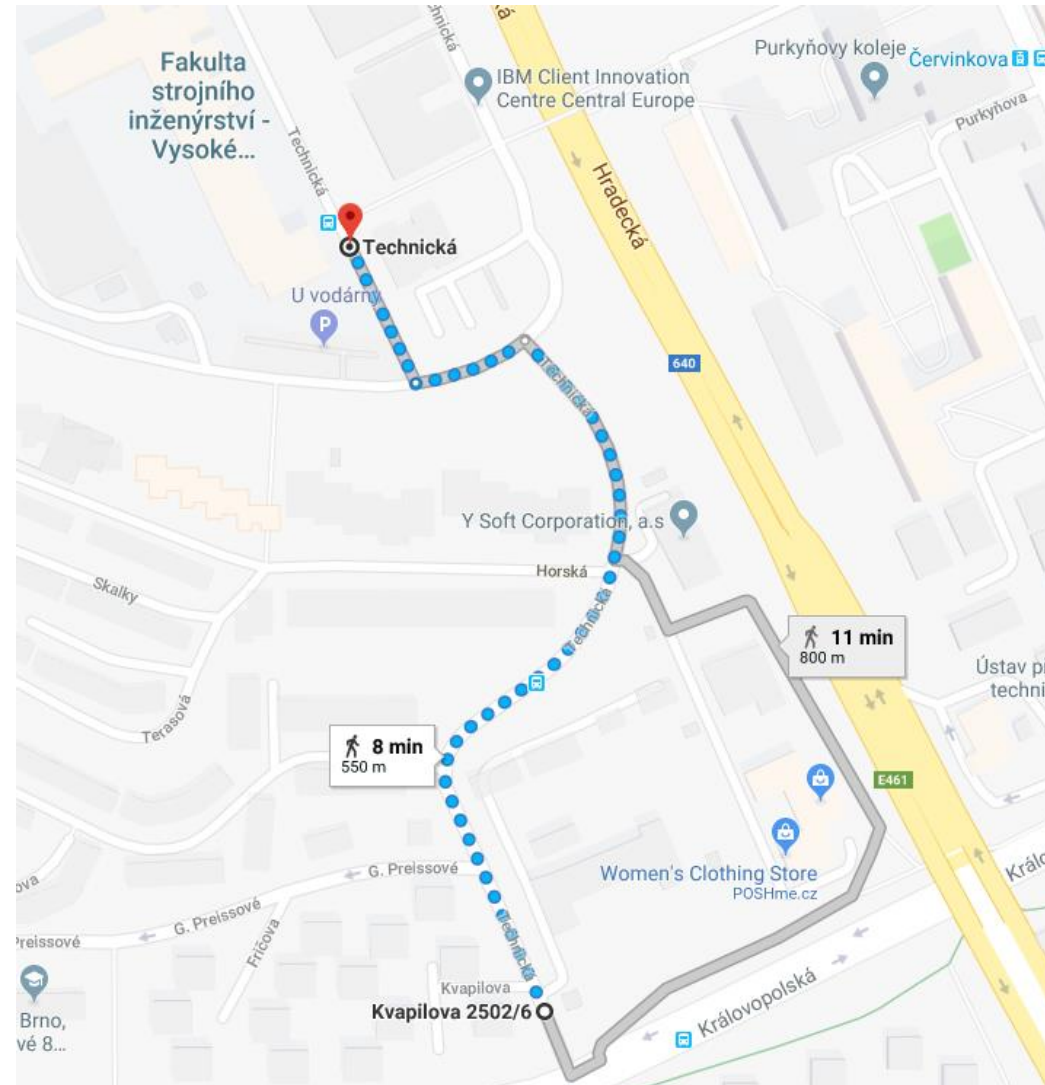
Address: Stránského 3140/39, 616 00 Brno-Žabovřesky
(B + R automatizace, spol. s r.o.)



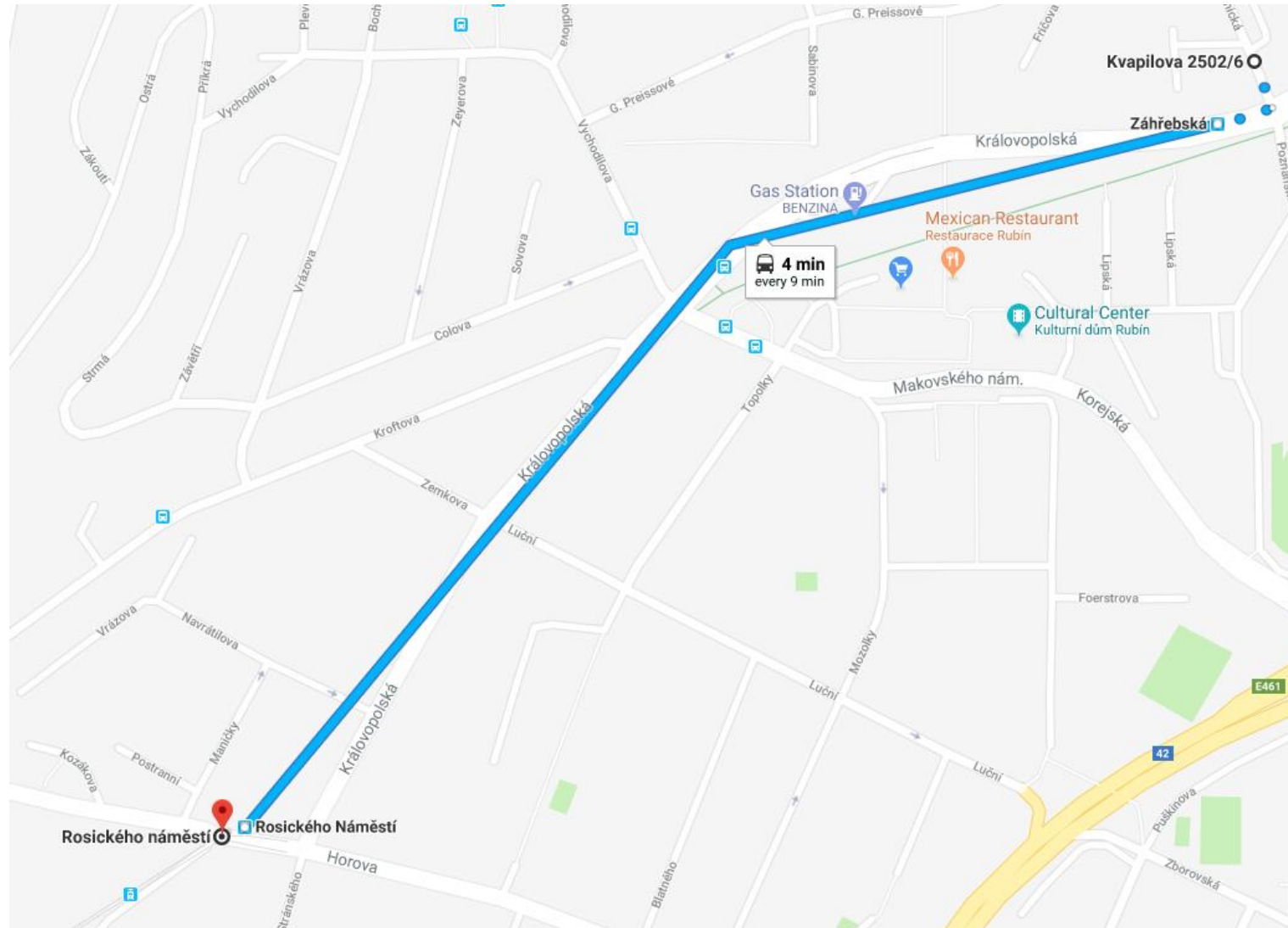
PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP



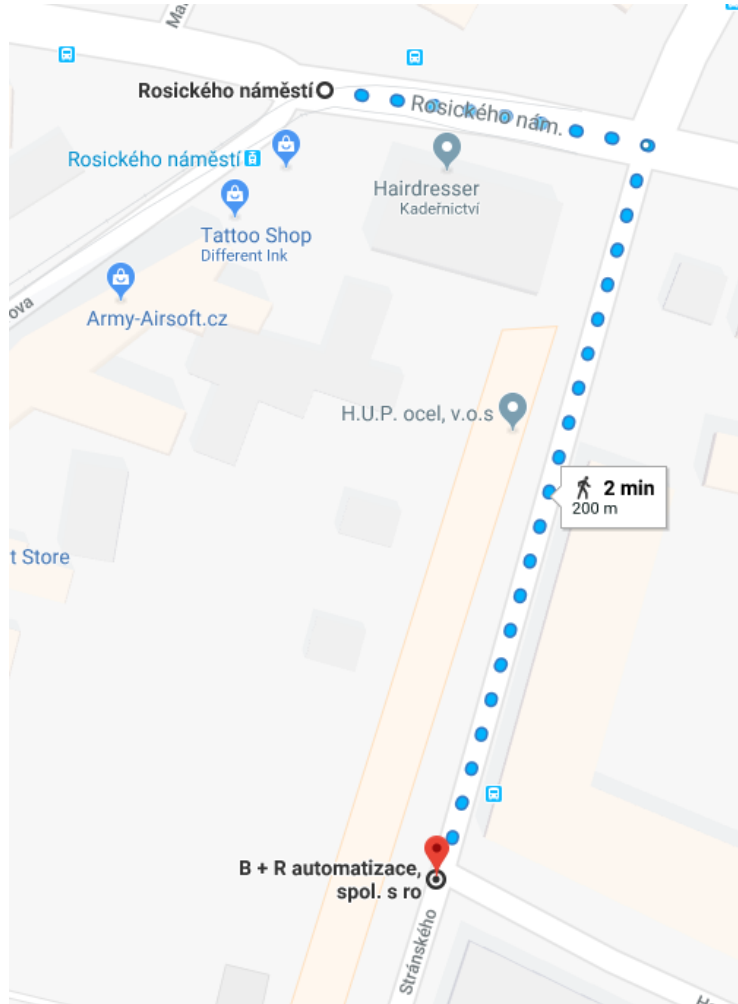
Bus stop: Faculty of Mechanical Engineering -> Záhřebská [53] (or on foot)



Bus stop: Záhřebská -> Rosického náměstí [67, 44]



On foot: Rosického náměstí -> B+R Automatizace



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