

Project proposal

Title: **OBJECT RECOGNITION**
Supervisor: Mathieu Salzmann
Timeframe: Fall 2021

EPFL Xplore is an interdisciplinary project whose aim is to design and develop a Rover to participate in two international competitions: the University Rover Challenge and the European Rover Challenge. For one of the tasks, the rover should navigate autonomously from a point A to a point B.

Project description

Problematic

The objective is to find an optimal vision algorithm for the navigation of the rover. The rover is supposed to reach autonomously a given location (no GNSS receiver) by avoiding obstacles and steep slopes, going through the shortest way and detect an AR-Tag. For this, it will use a SLAM algorithm. Since the environment in which it will navigate is a desert (patterns are difficult to find), 2 or more cameras will be used. A dataset will also be provided for the training of the different algorithms.

Required skills

MT/Robotics/IN master student

Contact

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