Mobile and Intelligent Robotics 2023/24

Sensors

Your group is an engineering team withing a company, which is in charge of developing the sensory subsystem of a new mobile robot that this company is developing.

The video Autonomous Mobile Robots (AMRs) in Action presents some situations of Autonomous Mobile Robots (AMR) applications in Industry. Based on this video, and other documentation you may find, identify several situations in AMR usage in Industry that require sensors, and identify which sensors could be used for those situations. If possible, try to identify concrete equipment and devices: note down, not just the type of sensor, but a brand and a model, as well as a cost. Discuss within your group the pros and cons of the alternatives you may find.

Draw a sketch of your AMR, indicating the sensor placement in the robot. At the end, your team will be called to present your design to the class.