ETLS 681
AI, Robotics and Autonomous Systems

Content

- Environment setup (for PC)
- Turtlebot-3 distribution for each team

Schedule

1	9/12	In person + Video	Introduction & Turtlebot3 e-manual video
2	9/19	Video	Introduction to Robotics and Turtlebot3
3	9/26	Video	Sensors for navigation and object recognition
4	10/3	Video	Introduction to ROS
5	10/10	In person	Intro to visual info understanding+ Team present
6	10/17	Video	Computer Vision 1 (image processing)
7	10/24	Video	Computer Vision 2 (OpenCV)
8	10/31	Video	Deep Learning and Gesture Recognition
9	11/7	In person	Gesture Recognition implementation and present
10	11/14	Video	NN and CNN
11	11/21	Video	Object Recognition, tracking and segmentation
12	11/28	Video	Kinematics and Manipulation
13	12/5	In person	ROS for navigation and sensing
14	12/12	Video	Collaborative Robots + Continue Group Project
15	12/19	In person	Final Presentation (Team Live)
16	12/20		Individual Final Report Due

Collaboration Team

1	David	Jacob	Moyata			
2	Alex	Colin	Mitch			
3	Rithya	Meng	Mohammad			
4						

Environment setup

- PC setup
  - Ubuntu → download the .iso file
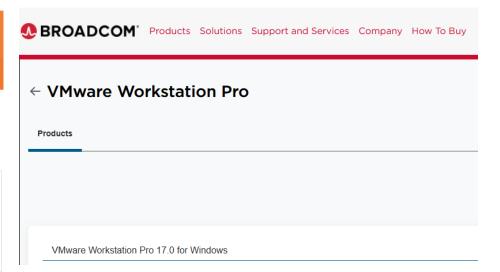 - Virtual machine → download and install VMware (must create an account)

https://releases.ubuntu.com/focal/
Ubuntu 22.04

https://support.broadcom.com/group/ecx/ productdownloads?subfamily=VMware%20 Workstation%20Pro&freeDownloads=true