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| Week | Content | Practice |
| 1 | Course introduction | Installations:   * Python, Git * Scikit-learn (<https://scikit-learn.org>) * OpenCV (<https://opencv.org> ) * Ai2thor (<http://ai2thor.allenai.org/> ) |
| 2 | Artificial Intelligence and Autonomous Robotics | Ai2Thor, simply control agents i.e. moving, acting with python  <http://ai2thor.allenai.org/> |
| 3 | Machine learning 1 | Sci-kit learn  <https://scikit-learn.org/stable/tutorial/index.html> |
| 4 | Machine learning 2 | Sci-kit learn  <https://scikit-learn.org> |
| 5 | Computer vision | Object detection with Open CV  <https://docs.opencv.org/3.4.0/d2/d64/tutorial_table_of_content_objdetect.html> |
| 6 | Dead Reckoning and Sensor fusion | <https://github.com/AtsushiSakai/PythonRobotics> |
| 7 | Path Planning | <https://github.com/AtsushiSakai/PythonRobotics> |
| 8 | Localization and Mapping | <https://github.com/AtsushiSakai/PythonRobotics> |
| 9 | Middle Term Test | Assignment 1: Controlling on Ai2thor |
| 10 | Neural network and Deep Learning | Real-time object detection and recognition with YOLO: <https://pjreddie.com/darknet/yolo/> |
| 11 | Reinforcement learning 1 | Learning to navigation on grid-wall: <https://github.com/rlcode/reinforcement-learning> |
| 12 | Reinforcement learning 2 | Target-driven Visual Navigation in Indoor Scenes using Deep Reinforcement Learning  <https://github.com/caomw/icra2017-visual-navigation-1> |
| 13 | Multi-Agents | <https://github.com/projectmesa/mesa> |
| 14 | Assignment 2 present | Assginment 2 demo |
| 15 | Assignment 2 present | Assginment 2 demo |