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Period:

From 2020/09/30 to 2021/01/20.

## Class hours:

Wednesday 09h00-10h30.

15 lecture classes.

- [01] 2020/09/30. 01. What robot is?
- [02] 2020/10/07. 02. Robot history.
- [03] 2020/10/14. 03. Robot configuration.
- [04] 2020/10/21. 04. Robot mechanism.
- [05] 2020/10/28. 09. Basic principles of manipulator: vector approach for kinetics (1).
- [06] 2020/11/04. 10. Basic principles of manipulator: vector approach for kinetics (2).
- [07] 2020/11/11. 11. Basic principles of manipulator: vector approach for kinetics (3).
- [08] 2020/11/18. 12. Basic principles of manipulator: vector approach for kinetics (4).
- [09] 2020/11/25. 05. Actuator.
- [10] 2020/12/02. 06. Sensor (part I).
- [11] 2020/12/09. 07. Sensor (part II).
- [12] 2020/12/16. 08. Reduction drive and Design of driving section.
- [13] 2021/01/06. 13. Manipulator control (1).
- [14] 2021/01/13. 14. Manipulator control (2).
- [15] 2021/01/20. 15. Conclusion

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Open URLs to attend the class (before 09h00):

## - Waseda Moodle (Bioengineering):

### Materials in Waseda Moodle are available only after your course registration.  
You must do the exercise and watch movies by yourself.  
You should study on-time, but you can also study not on-time on Waseda Moodle.  
The Subject is given at the end of class.

## - Zoom meeting:

You must attend to show your presence from 09h00 to 10h30.  
(URL will be informed in Waseda Moodle before the class-hour.)  
If necessary, we will have a discussion, and questions will be replied in the class.

## - Past record:

If necessary, you can refer movies of past classes on YouTube (from 2014).  
See <http://www.f.waseda.jp/matsumaru/d01lecture.htm>

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Procedures:

## (01) Exercise

09h00-09h15

From 09h00: Read PDF, Write in DOC or TXT.

Till 09h15: Submit Electric file (It also means taking attendance).

20RbtExampleExercise.doc or 20RbtExampleExercise.txt

Start: 2020/09/30 09h00

End: 2020/09/30 09h15

Outside: 2021/01/20 09h00

## (01) Exercise PDF

20Rbt(01)hep.pdf

Start: 2020/09/30 09h00

End: 2021/01/20 09h00

## (01) Main Body

09h15-

From 09h15: Read PDF for study.

20Rbt(01)hbp.pdf

Start: 2020/09/30 09h15

End: 2021/01/20 10h30

R01-01

R01-11

R01-21

etc.

09h15-

From 09h15: Watch movies for study (more than 95% required).

Start: 2020/09/30 09h15

End: 2021/01/20 10h30

(01) Discussion

09h15-

If you have something to discuss, let me know to share.

Start: 2020/09/30 09h15

End: 2021/01/20 10h30

(01) Subject

10h20-

From 10h20: Read PDF, Write in DOC or TXT.

Till 09h00 (next week): Submit Electric file.

20RbtExampleSubject.doc or 20RbtExampleSubject.txt

Start: 2020/09/30 10h20

End: 2020/10/07 09h00

Outside: 2021/01/20 09h00

(01) Subject PDF

20Rbt(01)hsp.pdf

Start: 2020/09/30 10h20

End: 2021/01/20 09h00

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Grade evaluation:

- Exercise score

- Subject score

- Learning status

Comprehensive judgment (TBD).

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[End]