

Mobile Robotics
Assignment 5
Non-holonomic Trajectory Planning

Submitted By

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Assumptions

For Over Constrained an extra condition was needed which was taken as follows :

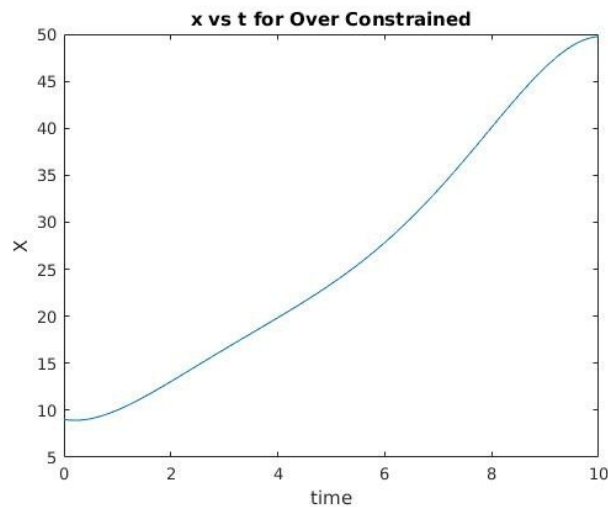
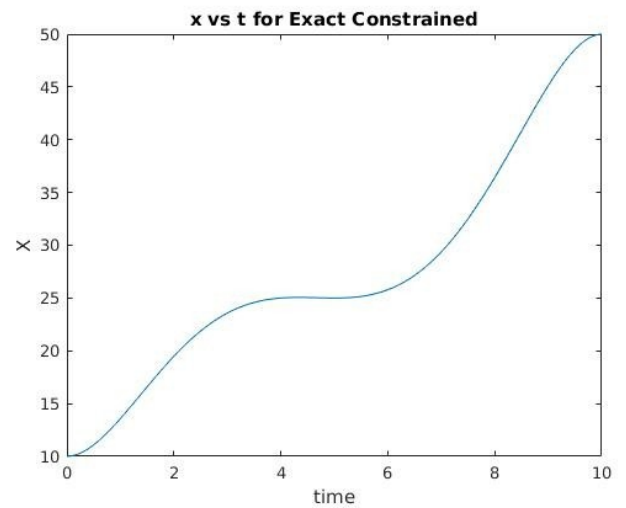
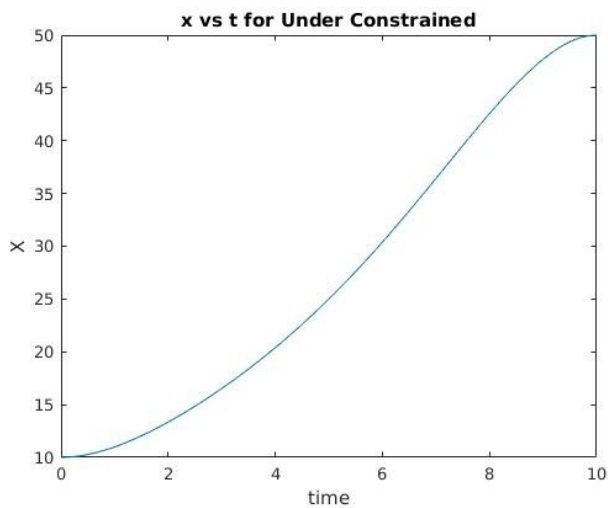
$t = t_c/2 = t_{cb2} = 2.5$;

$x_{cb2} = 12$;

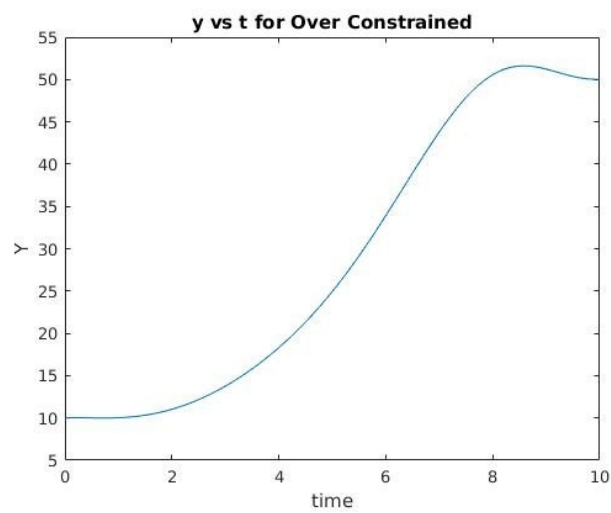
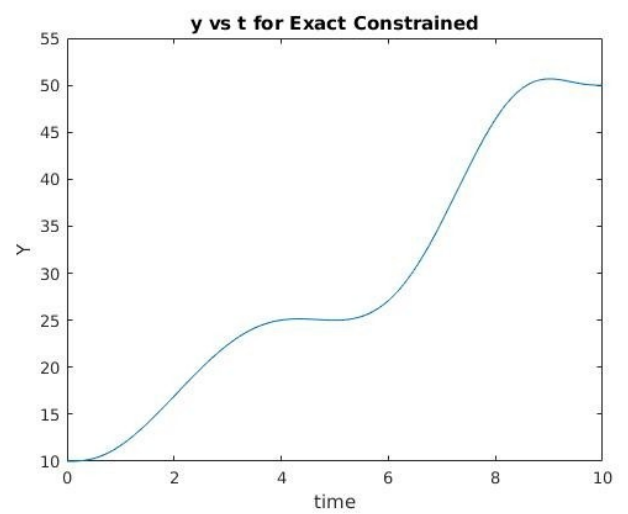
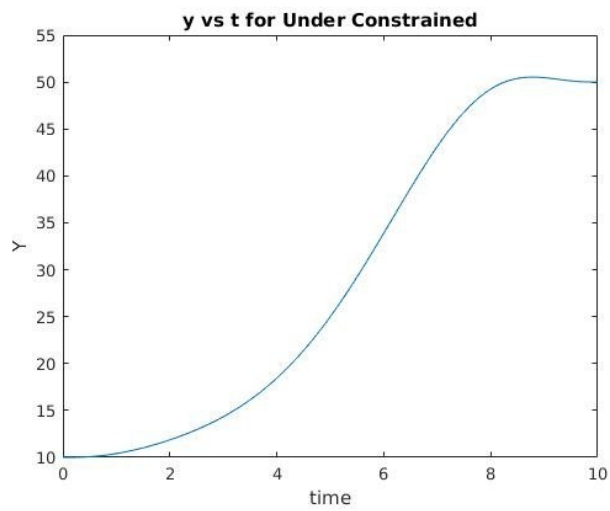
$y_{cb2} = 12$;

No extra condition apart from given in the question was needed for the other two cases.

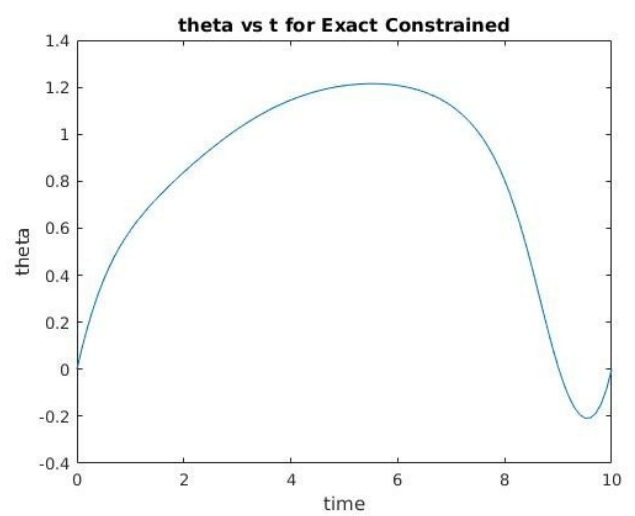
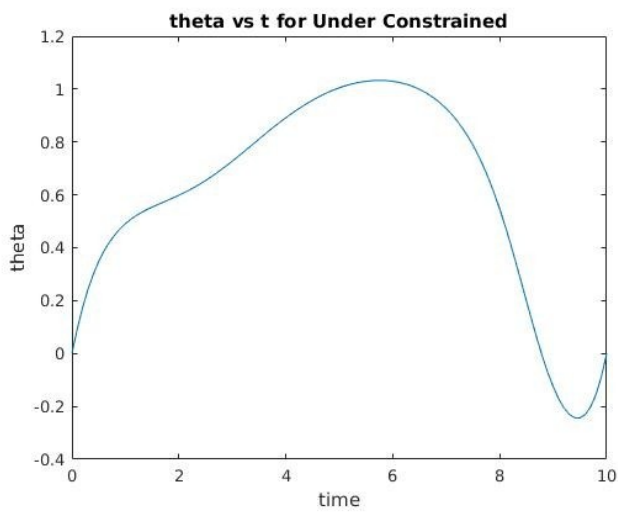
A) x vs t graphs for different cases

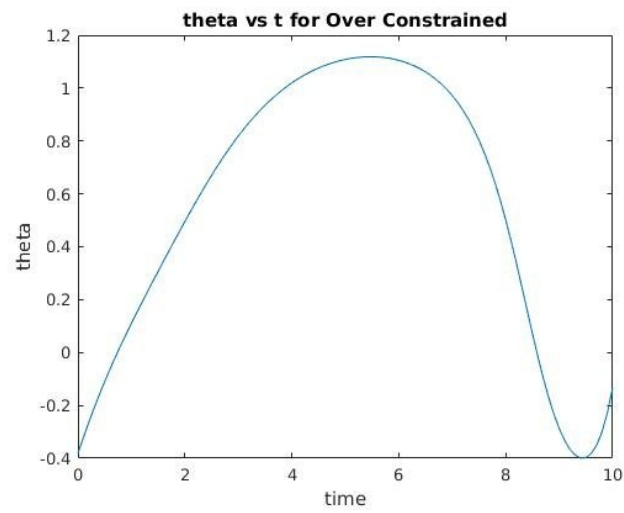


B) y vs t graphs for different cases

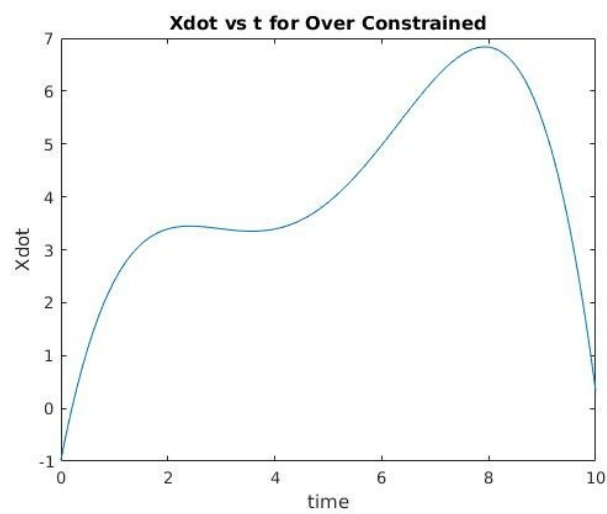
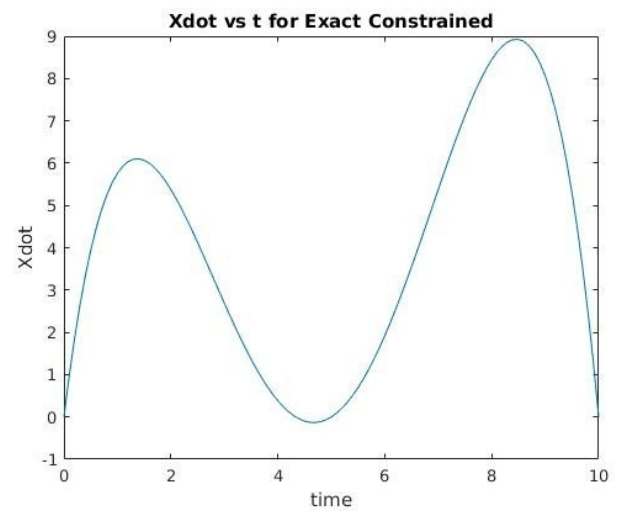
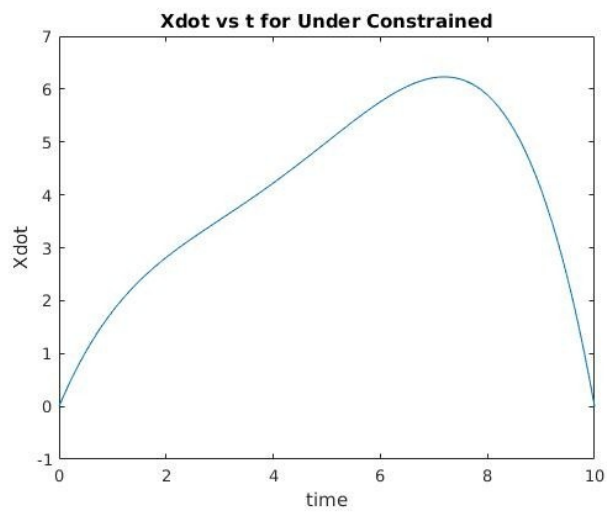


C) theta vs t graphs for different cases

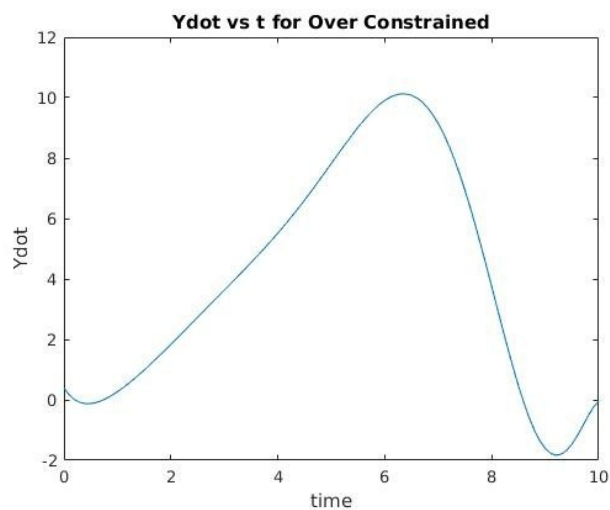
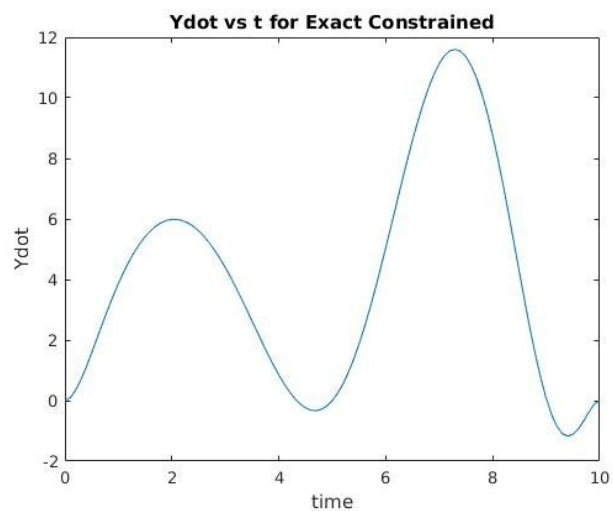
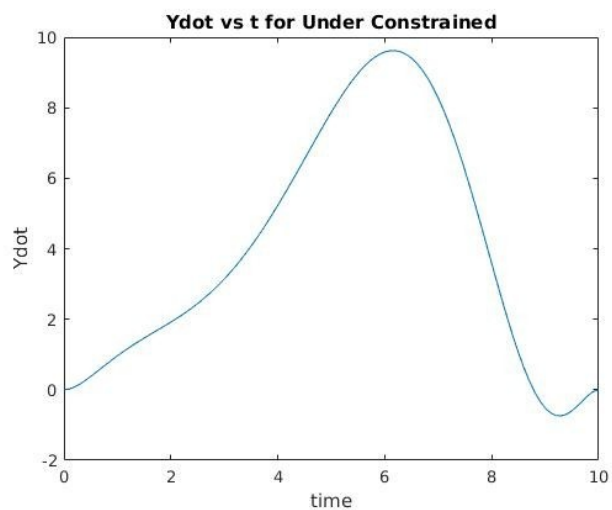




D) \dot{x} vs t graphs for different cases



E) \dot{y} vs t graphs for different cases



F) y vs x graphs for different cases

