Ackerman PID Controller Product Backlog						
Task No	**Task**	**Description**	**Status**	**stimated Time (minutes**	**Time Taken**	**Remark**
1	**Design**	**Plan how many classes are need and what are going to user inputs and come up with skeleton code for all the classes and its methods**	**Pending**	**90**	**-**	**-**
1.1	Design Robot Class	Decide how many attributes, methods and their access specifiers and design skeleton for this class	Pending	30	-	-
1.2	Design Ackerman Class	Decide how many attributes, methods and their access specifiers and design skeleton for this class	Pending	30	-	-
1.3	Design PID Class	Decide how many attributes, methods and their access specifiers and design skeleton for this class	Pending	30	-	-
2	**Unit tests**	**Design suitable unit tests**	**Pending**	**60**	**-**	**-**
2.1	Create Unit Tests for robot class	Create suitable unit test to ensure that all the methods are working as expected	Pending	20	-	-
2.2	Create Unit Tests for Ackerman Class	Create suitable unit test to ensure that all the methods are working as expected	Pending	20	-	-
2.3	Create Unit Tests for PID Class	Create suitable unit test to ensure that all the methods are working as expected	Pending	20	-	-
3	**Inspection**	**Perform Code inspection to find bugs that cannot be found by unit tests**	**Pending**	**30**	**-**	**-**
3.1	Inspect Source Code	Perform Code inspection to find bugs that cannot be found by unit tests	Pending	20	-	-
3.2	Inspect Unit Tests	Perform unit test inspection to find bugs that cannot be found by unit tests	Pending	10	-	-
4	**Implementation**	**Modify code to take in user inputs and initialise attributes as per the robot**	**Pending**	**240**		
4.1	Implement main.cpp	Finish Implementation of main.cpp	Pending	30	-	-
4.2	Implement Robot Class	Finish Implementation of Robot Class	Pending	30	-	-

4.3	Implement Ackerman Class	Finish Implementation of Ackerman Class	Pending	30	-	-
4.4	Implement PID Class	Finish Implementation of PID class	Pending	30	-	-
4.5	Implement Calculate method	Calculate the heading and velocity for inner and outter wheels	Pending	40	-	-
4.6	Implement PID Controller	Calculate the feedback of PID controller and change velocity and heading accordingly	Pending	80	-	-
5	**Finishing**	**Fine tune, clean up, generate documentaion and ensure code is complete to hand over to customer**	**Pending**	**150**	**-**	**-**
5.1	Tune gain values	Tune the gain values to ensure best output from PID controller	Pending	30	-	-
5.2	Clean up	Remove unused libraries, attributes and methods	Pending	30	-	-
5.3	Code Inspection	Inspect code for bugs which can't be found by unit testing	Pending	20	-	-
5.4	Documentation	Generate documentaion	Pending	40	-	-
5.5	Readme	Update readme	Pending	30	-	-