Name		Status		Logistics	Description	
ID	Task	Subtask	Status	Update Date	Development Package	Description
10	Track Design	4	Complete	2024-11-09	NA	Make initial 5m X 5m grid for the track
10.1	Track Design	Material Research	Complete	2024-10-20	NA	Find the appropriate material for the track, for the lines. Look up prices, compare feasibility and quality of different options
10.2	Track Design	Material Purchase	Complete	2024-10-26	NA	Visit stores for quotes, purchase material and tools required, bring to McGill
10.3	Track Design	Esquisse	Complete	2024-11-02	NA	Draw general outline for the track, take measurements and place markings precisely before permanent
10.4	Track Design	Réalisation	Complete	2024-11-17	NA	Apply permanent markings to the track
11	IMU Data - Bosch Sensor	5	Complete	2024-11-22	Sensing	Obtain accurate data from the IMU
11.1	IMU Data - Bosch Sensor	Understand Sensor	Complete	2024-10-26	Sensing	Read up on the documentation and understand how the sensor works. Be able to explain to anyone on the team
11.2	IMU Data - Bosch Sensor	Read Values with STM32	Complete	2024-11-02	Sensing	Use STM32 to read values from the sensor and print them. Must be able to parse and get all data output by sensor
11.3	IMU Data - Bosch Sensor	Test Quality of Values	Complete	2024-11-09	Sensing	Test the quality of the data output and its limits. Prepare testing document and data analysis
11.4	IMU Data - Bosch Sensor	UART with Jetson	Complete	2024-11-23	Sensing	Establish serial communication with the Jetson. Test for different use cases and make sure to be able read clearly
11.5	IMU Data - Bosch Sensor	Script/Flash	Complete	2024-11-30	Sensing	Write script that automatically reads IMU data and publishes it over UART. Must be robust with reset.
12	Motor Control - Input Acceleration	7	Waiting	2025-01-11	Sensing	Develop a new and better way to control the output to the motor
12.1	Motor Control - Input Acceleration	Understand current control	Waiting	TBD	Sensing	Find out whatever is going on with the current script. Why speed? How is it converted? What does the motor get? Why did they do it like that? Research how the motor works
12.2	Motor Control - Input Acceleration	Work out our needs	Waiting	TBD	Sensing	Discuss with software and hardware to see what is best for us. What is used in industry? What gives us the best response? What is feasible and not based on previous task.
12.3	Motor Control - Input Acceleration	Develop Script	Waiting	TBD	Sensing	Write out a script that implements what has been decided. Provide adequate documentation
12.4	Motor Control - Input Acceleration	Test Script	Waiting	TBD	Sensing	Test out the script with the motor. See the response and provide testing documentation. Iterative approach to work out algorithm
12.5	Motor Control - Input Acceleration	Combine with IMU script & Flash	Waiting	TBD	Sensing	Combine the script with the IMU script to be able to run both at once.
12.6	Motor Control - Input Acceleration	Test combined script	Waiting	TBD	Sensing	Test out combined script. Make sure no errors, lost data, stalling, delays, corruption
12.7	Motor Control - Input Acceleration	UART with Jetson	Waiting	TBD	Sensing	Test out combined script. Make sure no errors in communication, crashing or lost signals
13	Technical Challenge Path	4	In Progress	2025-02-22	Planning	Optimize path for the technical challenge
13.1	Technical Challenge Path	Survey of available approaches	In Progress	2024-11-09	Planning	What are the available options? Pros and Cons of each? Specificities to our competition? Be able to present and explain them to the team to discuss. Select 2 or 3 approaches to
13.2	Technical Challenge Path	Develop algorithm following approach	Waiting	2024-12-07	Planning	Develop algorithm in python, visualisation required. Summary of results, problems and what they imply. Take into account possible placement, trajectory, re-adjustment, etc.
13.3	Technical Challenge Path	Test algorithm (Graph)	Waiting	2025-01-11	Planning	Iterative testing, in combination with previous task/algorithm development
13.4	Technical Challenge Path	Integrate algorithm	Waiting	2025-02-08	Planning	Integrate the algorithm with the other packages. Fix any merging issues and situations in which to apply it.
14	RealSense - Launch	3	Complete	2024-11-01	Sensing	Fix realsense launch issues, find method to launch reliably and consistently
14.2	RealSense - Launch	Understand provided code	Complete	2024-10-27	Sensing	How does the current script launch the realsense and send the data? ROS? Serial communication? Explanation for everyone
14.3	RealSense - Launch	Survey of problems	Complete	2024-11-02	Sensing	Discuss issues that aros last year. Detail them and find out what causes them. Documentation and explanation for issues to explain to team mates.
14.4	RealSense - Launch	Find method to launch realsense	Complete	2024-11-09	Sensing	Find the method that enables the realsense launch with reliability. New script? Settings within current script? Required manipulations? Document procedure.
15	IMU Data - RealSense	4	In Progress	2024-12-16	Sensing	Obtain accurate data from the RealSense IMU
15.1	IMU Data - RealSense	Understand IMU function	Complete	2024-11-09	Sensing	Understand the way the RealSense IMU works. Specificities, ways it publishes data and how it communicates
15.2	IMU Data - RealSense	Identify issues with IMU data	Complete	2024-11-23	Sensing	Identify the issues with obtaining the data. Survey data from previous year, test situations and launching
15.3	IMU Data - RealSense	Find method to acquire IMU data	Complete	2024-11-30	Sensing	Find the method that enables us to get IMU data from the RealSense reliably. New script? Settings within current script? Required manipulations? Document procedure.

Name		Status		Logistics	Description	
ID	Task	Subtask	Status	Update Date	Development Package	Description
15.4	IMU Data - RealSense	Test Quality of Values	Waiting	2024-11-30	Sensing	Test the quality of the data output and its limits. Prepare testing document and data analysis
16	Documentation - Hardware	2	In Progress	2025-01-01	NA	Document this year's hardware
16.1	Documentation - Hardware	Interaction Diagram	In Progress	2024-12-16	NA	Create architecture for hardware. Detail with all components and connections.
16.2	Documentation - Hardware	Organize previous year documents	Complete	2024-11-16	NA	Organize last year's documents for further reference and help
17	Documentation - Software	2	In Progress	2025-01-01	Multiple	Document this year's software
17.1	Documentation - Software	Re-Organize GitHub RePo	Complete	2024-11-30	Multiple	Organize the GitHub Repo such as to make it easier to navigate and develop. Needs to be done before sharing with BFMC
17.2	Documentation - Software	Write ReadME for all	In Progress	2025-01-01	Multiple	Write ReadMe for all repositories, to make it understandable and portable. All important information should be contained such that a newcomer knows how to install and use
18	Integration Testing	3	In Progress	2025-01-01	Multiple	Ongoing integration testing for all algorithms
18.1	Integration Testing	Previous Year Running	Complete	2024-11-16	Multiple	Get last year's algorithms to work
18.2	Integration Testing	New Car Kit/Running	Complete	2024-12-07	Multiple	Get last year's algorithms to work on the new Bosch provided Harware
18.3	Integration Testing	General Testing/Bug Fixing	Complete	2024-11-13	Multiple	General testing to find issues with code, hardware. Test for accuracy, reliability,etc.
19	Steering Calibration	2	In Progress	2024-12-16	Sensing	Calibrate the steering for accuracy
19.1	Steering Calibration	Test the actual steering accuracy	In Progress	2024-11-23	Sensing	Test the current quality of the steering
19.2	Steering Calibration	Calibrate the steering	Waiting	2024-11-23	Sensing	Calibrate and ajust the sensitivity of the steering
20	Chassis Design - Development	3	In Progress	2024-11-09	NA	Design a chassis that makes the installing and removing of all boards (jetson, STM32) easy and efficient. Must take into account cable management, rigidity, stability.
20.1	Chassis Design - Development	Measurements and survey	Complete	2024-10-20	NA	Survey of car dimensions, installation and anchor points, dimensions of boards and of chasis.
20.2	Chassis Design - Development	Design hypothesis	Complete	2024-10-26	NA	Rough ideas and brainstorming, different approaches and possible mechanisms that could work
20.3	Chassis Design - Development	Modelling	In Progress	2024-10-26	NA	Modelling and design of actual parts
20.4	Chassis Design - Development	Printing and testing	In Progress	2024-11-02	NA	Printing and testing of parts to see if functional design
21	Communication with Car	4	Waiting	2024-02-01		Implement a way to communicate with the car that minimizes delays and gives us real-time feedback
21.1	Communication with Car	Identify source of current problems	Complete	2024-12-07	Multiple	Identify the reasons for which communication is very slow right now
21.2	Communication with Car	Research alteratives & report	In Progress	2025-01-05	Multiple	Research alternative methods of communication with the jetson, that would enable real-time streaming of data
21.3	Communication with Car	Implement test scripts	Waiting	2025-01-19	Multiple	Implement test scripts and measure the delays of communication between devices
21.4	Communication with Car	Adapt to the dashboard	Waiting	2024-02-01	Multiple	Adapt the dashboard so that the source of the data can be from the stream of information and not through ROS
22	Local Planning Waypoints	2	Waiting	TBD	Planning	
22.1	Local Planning Waypoints	Review current lane detection	Waiting	TBD	Planning	
22.2	Local Planning Waypoints	Make lane detection work	Waiting	TBD	Planning	
23	Speed Calibration	3	In Progress	2024-12-08	NA	Make sure that the commands we are sending to the car reflect the actual behaviour of the car
23.1	Speed Calibration	Test the current speed accuracy	In Progress	2024-11-29	NA	Test the calibration that Bosch made on the car. Check for error values and accuracy
23.2	Speed Calibration	Understand the code for controlling speed	Waiting	2024-12-21	NA	Understand the code so that adjustments are based on the internal workings of the embedded system platform
23.2	Speed Calibration	Tune the values for speed	Waiting	2024-12-21	NA	Tune the values based on the test results and the understood code from embedded platform

December 2024

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	December 2, 2024	December 3, 2024	December 4, 2024	December 5, 2024	December 6, 2024	December 7, 2024	December 8, 2024
McGill			Monday Schedule Last day of classes	Study Day	Exams Begin		
Bosch							
Team						Worksession	
Preparation							
Hardware						18.2 - New Car Kit/Running	23 - Speed Calibration
Software						13.2 - Develop algorithm following approach 21.1 - Identify source of current problems	
	December 9, 2024	December 10, 2024	December 11, 2024	December 12, 2024	December 13, 2024	December 14, 2024	December 15, 2024
McGill							
Bosch							
Team							
Preparation							
Hardware							
Software							
	December 16, 2024	December 17, 2024	December 18, 2024	December 19, 2024	December 20, 2024	December 21, 2024	December 22, 2024
McGill					Exams End		
Bosch	Status Report 1						
Team						Team Event : Recap and Christmas Break	
Preparation							
Hardware	15 - IMU Data - RealSense 16.1 - Interaction Diagram 19 - Steering Calibration					23.2 - Understand the code for controlling speed 23.2 - Tune the values for speed	
Software							
	December 23, 2024	December 24, 2024	December 25, 2024	December 26, 2024	December 27, 2024	December 28, 2024	December 29, 2024
McGill							
Bosch							
Team							
Preparation							
Hardware							
Software							
	December 30, 2024	December 31, 2024	January 1, 2025	January 2, 2025	January 3, 2025	January 4, 2025	January 5, 2025
McGill							
Bosch							
Team						Worksession	
Preparation							
Hardware			16 - Documentation - Hardware 18 - Integration Testing				
Software			17 - Documentation - Software 17.2 - Write ReadME for all				21.2 - Research alteratives & report

January 2025

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	December 30, 2024	December 31, 2024	January 1, 2025	January 2, 2025	January 3, 2025	January 4, 2025	January 5, 2025
McGill							
Bosch							
Team						Worksession	
Preparation							
Hardware			16 - Documentation - Hardware 18 - Integration Testing				
Software			17 - Documentation - Software 17.2 - Write ReadME for all				21.2 - Research alteratives & report
	January 6, 2025	January 7, 2025	January 8, 2025	January 9, 2025	January 10, 2025	January 11, 2025	January 12, 2025
McGill	Classes Begin						
Bosch							
Team						Worksession	
Preparation							
Hardware						12 - Motor Control - Input Acceleration	
Software						13.3 - Test algorithm (Graph)	
	January 13, 2025	January 14, 2025	January 15, 2025	January 16, 2025	January 17, 2025	January 18, 2025	January 19, 2025
McGill							
Bosch							
Team						Worksession	
Preparation							
Hardware							
Software							21.3 - Implement test scripts
	January 20, 2025	January 21, 2025	January 22, 2025	January 23, 2025	January 24, 2025	January 25, 2025	January 26, 2025
McGill							
Bosch	Status Report 2						
Team						Worksession	
Preparation							
Hardware							
Software							
	January 27, 2025	January 28, 2025	January 29, 2025	January 30, 2025	January 31, 2025	February 1, 2025	February 2, 2025
McGill							
Bosch							
Team						Worksession	
Preparation							
Hardware							
Software							