



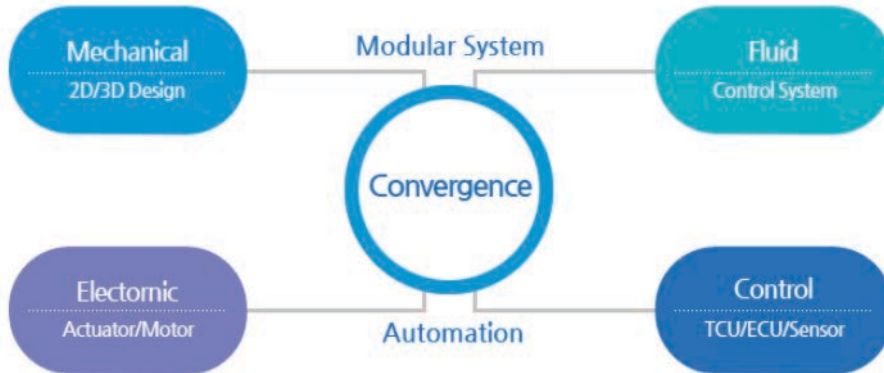
**DRIVETECH**

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**PRODUCT CATALOGUE**

[www.drivetech.kr](http://www.drivetech.kr)

## Zero Based Engineering



DRIVETECH is a R & D company providing high efficiency, standardization and advancement of drive system.

"The best quality, the best workplace"

We challenge dreams and future through communication.

Thanks to everyone who visits DRIVETECH.

Aiming to be a compact and competent enterprise, DRIVETECH is the vision of the Leader of Green-Energy Vehicle Components for High efficiency, standardization and advancement of electric vehicle drive system and composed of experts in automobile fields.

In addition, we are committed to the development of new technologies from the beginning with our customers.

We are pursuing perfection in quality, price and supply.

Internalizing the mission, core value, and vision of the enterprise, Under these principles and standards, we are giving all employees meaning "The organization in which the spirit lives, the enterprise that lasts forever"

We are reborn as a vitality for the implementation of vision for all, Generating revenue in response to the expectations from our employees and local communities.

As a respected creative company that contributes to our society and the nation We'd be best to answer your expectations.

Thank you.

All employees of DRIVETECH.



## DT e-MOBILITY

### DTEV-4W012



ITEM	SPEC	LOAD
Length (mm)	2,432	1,100
Width (mm)	1,020	1,240
Height (mm)	1,289	640
Weight (kg)	850	500
Motor Type	1.2kW BLDC	-
Max Speed(km)	35	-
Max Distance(Km)	50	-
Battery (V)	48	-



**1. Purpose** : cargo-loadable small electric truck with 2 seater,

**2. Use** : Traditional markets, large shopping malls, underground stations, agricultural fishing villages, golf courses

**3. Function** : The K-300 is an eco-friendly multi-purpose electric truck capable of two-person riding and cargo loading. It is suitable for use in frequent markets, shopping malls and golf courses where passengers take their boarding or small cargo. With its technology-based control system and new battery and charging technology, it does not cause performance degradation for long periods of continuous operation in various environments. It is a stable operation with the vehicle application technology and verification process. An integrated, high-visibility smart cluster system that allows women, elderly and novices to learn and operate quickly.

#### 4. Applied Technology

VCU for odometer control system EV-Various ECU integration control-active driving control according to road characteristics, application of contextual fuel economy improvement algorithm, braking system associated with brake

Smart clusters-Easy to understand and present, in real-time identification of the vehicle's various information, in conjunction with the sensor to monitor vehicle performance.

Motor controller-precise speed control and fast speed correction, low speed torque control, smooth deceleration and vibration suppression, overvoltage and overcurrent stability.

Hybrid charging system, magnesium battery

**5. Remark** : With its own motor drive and control algorithms, DRIVETECH is able to tailor the design to your needs at home and abroad. High-efficiency, low-noise, precise torque-controlled electric car-driven motors offer a competitive price to your customers.

## DT ELECTRIC VEHICLE

### Mini-TRUCK



Specification	Length x Width x Height (mm)	3,350×1,600×1,700	
Maximum speed	Km/h	Agricultural	15~30
		General	15~60
Operating distance	Km	25~50	
Cargo box	Length x Width x Height (mm)	1,500×1,250×250	
Vehicle weight	Kg	750(including battery)	
Cargo weight	Kg	300(400 on flatland)	
Driving type	Motor	72V / 7Kw	
	Battery (72V)	8V×9EA / 12V×6EA	
	Charger	72V(12A)	
	Driving method	ACMotor	
Wheel track	Front wheels (mm)	1,020	
	Rear wheels (mm)	1,040	
Minimum ground clearance(mm)	135		
Suspension (front/rear)	MacPherson strut independent suspension		
Brakes (front/rear)	Disc type hydraulic brake (electronic brake)		

### Mini-2P-EV



전장 / Overall Length(mm)	2735
전폭 / Overall Width(mm)	1600
전고 / Overall Height(mm)	1630
축거 / Wheelbase(mm)	1810
윤거(전/후) / Distance Wheel(Front/Rear) (mm)	1360/1350
공차중량(kg) / Unloading Weight	1080
모터 최대마력(ps) / Motor	82
모터 최대전력(kw) / Motor	60
최고속도(km/h) / Max Speed	105
최대토크(N,m) / Max Torque	180
1회 충전 주행거리 / Mileage	200
등판성능(%) / Hill Climb Ability	26
타이어(전, 후) / Tire (Front/Rear)	195/50 R15
배터리팩(kw) /Battery Pack	31,9
충전시간 완속 / 급속(h) / Charging Hour	4h / 1,5h
충전방식 / Charging Type	DC COMBO

### 0.8/1t-TRUCK



전장 / Overall Length(mm)	3650
전폭 / Overall Width(mm)	1510
전고 / Overall Height(mm)	1860
축거 / Wheelbase(mm)	2415
윤거(전/후) / Distance Wheel(Front/Rear) (mm)	1285/1295
공차중량(kg) / Unloading Weight	1160
적재중량(kg) / Loading Weight	800
모터(kw) / Motor	18
최고속도(km/h) / Max Speed	90
최대토크(N,m) / Max Torque	180
1회 충전 주행거리 / Mileage	170
등판성능(%) / Hill Climb Ability	26
타이어(전, 후) / Tire (Front/Rear)	165R13LT
배터리팩(kw) /Battery Pack	30
충전시간 완속 / 급속(h) / Charging Hour	4h / 1,5h
충전방식 / Charging Type	DC COMBO



## DT e-PowerTrain

**DTAT-1S060**

**REDUCTION GEAR BOX**



ITEM	SPECIFICATION
Max Torque	60 Nm
Max rpm	6,000
Gear ratio	9 : 1
Center Distance	154 mm
Oil	SAE 80
Weight(Kg)	Approx. 9.5
Option(X2-EPB)	Electric Parking Brake

**1. Purpose** : Powertrain for electric car

**2. Use** : Manufacturers who are developing electric cars, companies considering development, and companies wishing to upgrade existing reducers

**3. Function** : The reducer in the car is a mechanical device that switches to the low output speed of the torque, which has a high fast input rate that the reducer receives. With this reducer, the proper size driving force is finally delivered to the wheels, which forces the car to roll the road. The deceleration ratio is the factor that determines the large and small driving force that is passed to the wheel. Therefore, it is essential to have a precise quality reducer as well as motors and transmissions to achieve optimal driving force.

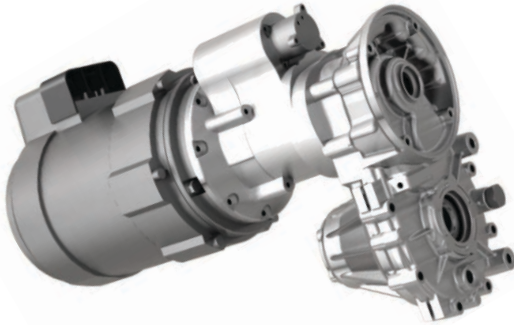
The Reducer DTA series of drive Tek is a product of outstanding versatility that can be applied to a small electric vehicle that is currently being marketed or a new type of electric car under development. Based on the trends in the electric car market, which seeks high efficiency and eco-friendly products, the product realizes a 20% reduction in miniaturization compared to its equivalent reducer. Its decelerator is a consistent, reliable performance and proven durability advantage in any environment.

**4. Remark** : DRIVETECH is a supplier of domestic technology to develop products, produce technical improvements and supply customers with competitive prices. It is possible to develop and deliver the reducer corresponding to the large and small output of various electric vehicles at home and abroad in consultation with the customer. It is also possible to collaborate with the motor currently under development.

# DT e-PowerTrain

## DTAT-2S060

### 2-SPEED TRANSMISSION



- 20% Light weight & smaller volume
- 20% more economical electric consumption
- Smaller battery & Motor capacity
- More high driving performance

ITEM	SPECIFICATION
Type	2-Speed Rear Wheel Drive Using Motor Actuated Synchronizer Electronic Control
Max Torque	60 Nm
Max rpm	7,000
Gear ratio	12 : 1 ( 6 : 1 )
Center Distance	108 mm
Oil	SAE 80
Weight(Kg)	Approx. 31
Max. Speed	80km/h

**1. Purpose** : Powertrain for electric car

**2. Use** : one-speed transmission of existing electric car, two-speed gearbox, makers wishing to upgrade, new electric car development

**3. Function** : The gearbox column of the automobile is the machine which changes the speed and power and direction by the internal multiple gears. By default, every car has a gearbox and even a gear is classified as a transmission. Inside the car, the engine (motor) -transmission-reducer is placed in this order and the power transmission is easy to understand. In the case of electric vehicles, the trend is gradually facing two-speed transmissions (slow, fast).

The two-speed transmissions from the drive Tec are designed to exert optimal performance for small electric vehicles. It ensures fast, reliable and smooth shifting, even in the number of rotations of any area used by the odometer. By minimizing the number of internal components, we have high durability and competitive price. Its technology has been miniaturized and reduced by about 20% compared to the third-party transmission, and is capable of saving more than 20% of power when driving.

Its two-speed transmissions will give you the best possible power and velocity to cope with all of the terrain and traffic conditions that can be met on the road until your electric vehicle starts to stop.

**4. Remark** : DRIVETECH is a supplier of domestic technology to develop products, produce technical improvements and supply customers with competitive prices. It is possible to develop and deliver the transmission corresponding to the large and small output of various electric vehicles at home and abroad in consultation with the customer. It is also possible to collaborate with the motor currently under development.

## DT e-PowerTrain

### DTM-MOTOR

### BLDC MOTOR for e-MOBILITY

	<b>DTM-10N SERIES</b> 5/15/25/50/100W			<b>DTM-10 SERIES</b> 500 / 750 / 000W	
	<b>DTM-90N SERIES</b> 120 / 200 / 400W			<b>DTM-13 SERIES</b> 1000 / 1500 / 2000W	
	<b>DTM-90 SERIES</b> 200 / 300 / 400W			<b>DTM-16 SERIES</b> 750 / 1500 / 2000W	

**1. Purpose :** Motor for E-mobility

**2. Use :** Powertrain for Electric kick board, electric car, industrial machinery, medical equipment

**3. Function :** BLDC motor is a green, high-efficiency, high-performance motor that replaces the DC motor, induction motor. A motor that replaces mechanical wear-prone components with electrical and electronic circuits in DC motors.

It is a product that is developed by its technology and is superior in speed versus good speed torque characteristics compared to third-party output motors. Excellent low speed torque is an advantage. It also shows stability without sacrificing performance for continuous operation. The advantages of mechanical noise and electrical noise are very small when applied to electric vehicles and industrial machinery. It is a motor of strengths that can be useful for products with space and weight constraints, aiming at downsizing in size and weight. The standardization and standardization of strict quality control, the production efficiency is high and the unit price is lowered.

**4. Specifications :**

Rotor: neo-D Dream Magnet applied IPM, SPM type

Stator: 3-Phase 24-Slot scatter-linear

Controller: Microcomputer proportional control, IGBT power module adoption

Output: Up to 2kw wide configuration.

**5. Remark :** DRIVETECH manufactures and holds BLDC motors for a variety of products to meet the requirements of every customer. More BLDC motor products are in the catalogue from the leaders.

## DT e-PowerTrain

### DTM-IW010



### Inwheel Transmission Advantage

[General InWheel Motor]		[Inwheel Transmission Module]	
SPECIFICATION		SPECIFICATION	
Driving motor rated output	1kw	Driving motor rated output	1kw
Lead Acid battery	1.4kwh	Lead Acid battery	1.4kwh
Max speed	40km/h	Max speed	60km/h
Climbing ability	20%	Climbing ability	35%
Mileage per battery charge	40km	Mileage per battery charge	45km

▪ Double the performance of 50cc e-Scooter by installing the In-wheel Transmission Module

**1. Purpose :** Inwheel motor for E-mobility

**2. Use :** Small two-wheel, three-wheeled electric car

**3. Function :** Drive Tech's in-wheel motor is a motor with the ability and shifting capability to deliver direct drive power to the motor in the wheel. In addition to having the features of the in-wheel motor, the shift module has been added to the development of a major performance that was not found in conventional in-wheel motors.

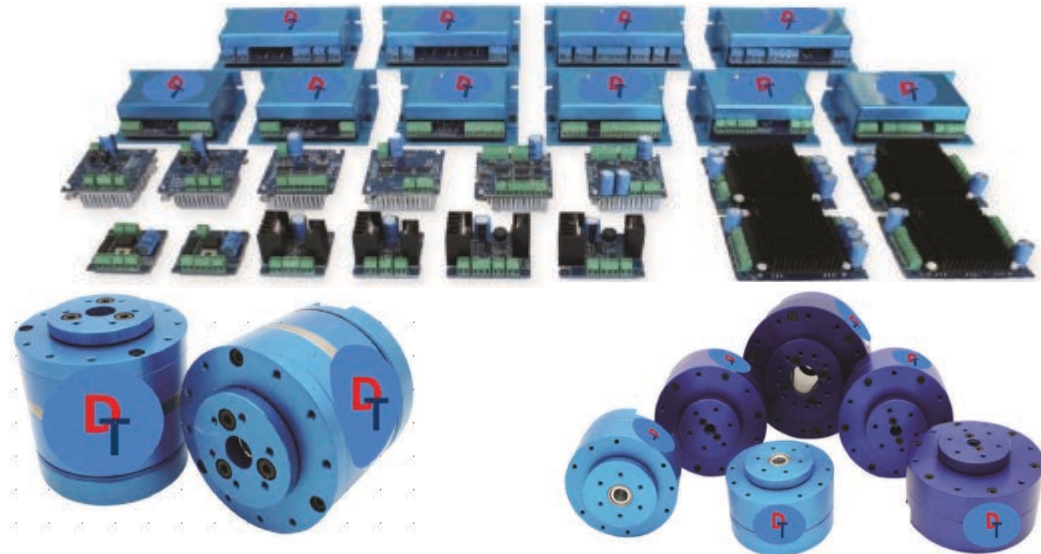
Its in-wheel motor is built with a two-speed automatic transmission module developed by domestic technology, achieving high power, high efficiency, delivering low-speed 1-stage, high-velocity two-stage power. When mounted on a motor in its class, it has been proven to have a 50% increase in the peak and equal to the conventional 1-speed shifting module, and 10% movement distance. I do not use the battery's unreasonable power and I am looking forward to improving the battery life. It also allows the motor and controller to be lightweight during design. and the RPM-specific shifting ratio provides accelerated performance tune-up capability.

It is a product that is tested to exert reliably in any environment above the road, so it is superior in durability and poor performance.

**4. Remark :** DRIVETECH is a supplier of domestic technology to develop products, produce technical improvements and supply customers with competitive prices. Our in-wheel motors are capable of delivering development at competitive prices according to the specifications demanded by customers.



## DT Smart MOTOR SYSTEM [for Robot/Automation]



**1. Purpose :** Motor drive system for robot

**2. Use :** Robot development, automation equipment, industrial machinery, medical equipment

**3. Function :** Our motor controllers, drivers and motor systems are optimized for the implementation of robots used in the industrial field. With its differentiated technology, it is possible to develop and produce customized products based on the technology of motor control, sensor signal processing and robot algorithm.

It is developed with its own technology and superior in speed compared with other comparable output motors and has good speed vs. torque characteristics. Excellent low-speed torque is an advantage. It also shows stability without deterioration in continuous operation. When applied to electric vehicles and industrial machines, there is an advantage that mechanical noise and electric noise are very small. It is a motor of strength that can be used effectively for products that are limited in space and weight with the aim of miniaturization in size and weight. Standardized, standardized and produced under strict quality control, the efficiency is raised and the unit price is reduced.

**4. Specifications :**

Handling motor : DC motor, BLDC motor

Motor Voltage : DC 2 ~ 35V.

Rated power : 5 ~ 400W

Input method : Analog, PWM, RC, serial communication

**5. Other :** In order to meet the requirements of every customer, DRIVETECH manufactures various kinds of BLDC motors. More BLDC motor products are available in the catalog.

## DT MOTOR DESIGN SYSTEM

### Lab Introduction

Electro-mechanical Computer Aided Design (ECAD) Lab carries out magnetic circuit and optimization design of electric machines and other electric energy conversion devices based on electro-magnetic field theory, as well as multi-physics research in cooperation with electric field-mechanical field

#### Electric Machinery Design/ Analysis

Home appliance : Various Compressor, Fan motors, etc  
 Others : Military , Large Capacity Superconducting Motor, Drive  
 Automobile application : Traction, EPS, EOP, EWP, ISG, Compressor, In-Wheel motor, etc

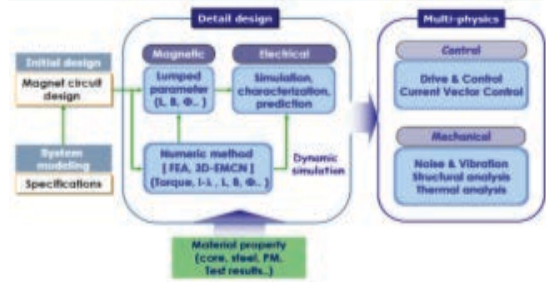
#### Multi-physics

Noise/vibration, Modal analysis, Structural analysis, Thermal analysis

#### Software

Development of Design and Electric Field Numerical Analysis Program for Embodiment of Computer Aided Design Module

#### ECADesign Process



### Achievements

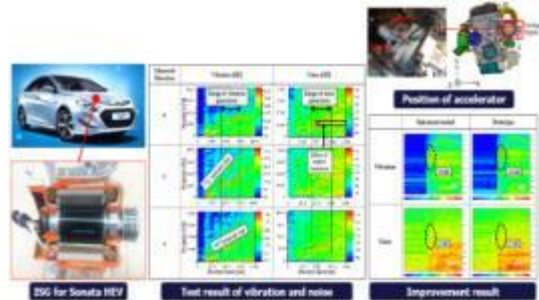
#### Optimum design of Traction Motor of High Efficiency Vehicle to Enhance

**Project outline** Design of traction motor for HEV 1600CC and 2400CC Research for high efficiency traction motor.



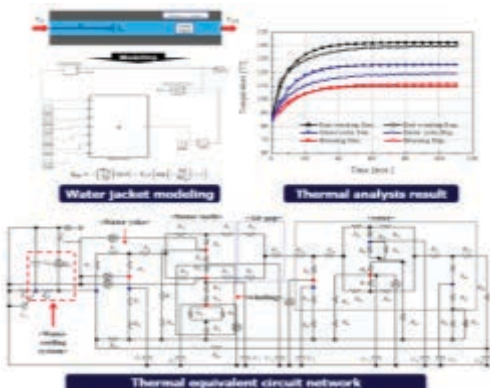
#### Development of Design Method of Motor for HEV

**Project outline** Acoustic noise is detected inside of vehicle (At the time of engine starting) Analysis of vibration and noise order is performed by testing of vibration and noise according to rotating speed



#### Thermal equivalent circuit network

**Project outline** Thermal equivalent circuit network composition for simple thermal analysis  
 Thermal equivalent circuit network modularization  
 Add water cooling module → water jacket modeling



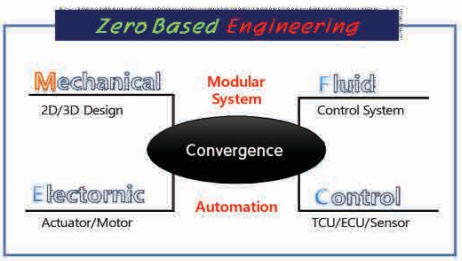
#### PMSM Design Program



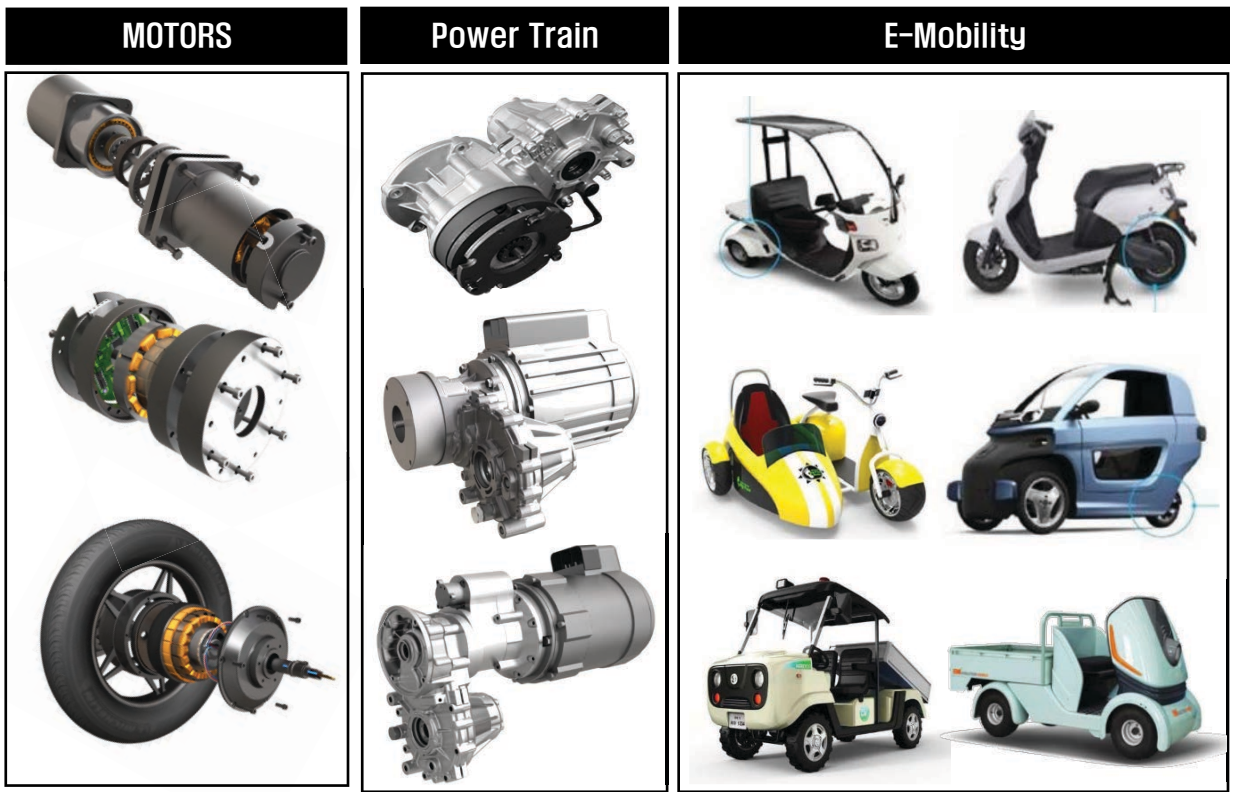
WE ARE BUILDING PRODUCTS *base on* **ELECTRIC VEHICLE**  
 IF YOU NEED THEM,  
 WE WILL PROVIDE **PRODUCTS** *and* **ENGINEERING SERVICE.**

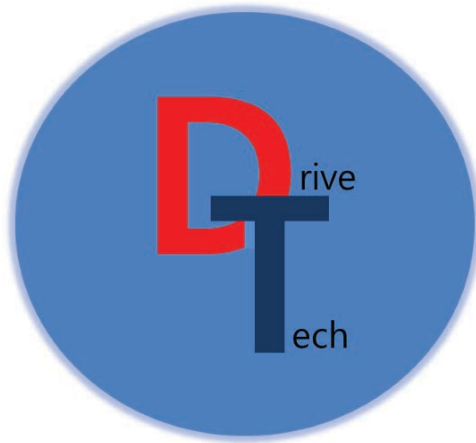
## What is DRIVETECH ?

DRIVETECH is an R & D company that provides **high efficiency, standardization, and advancement of drive system** as leader of eco-friendly automobile Components.



## ENGINEERING SERVICE (Custom made Production)





# DRIVETECH

## **DRIVETECH**

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