



2022 - 2023



OFFICIAL TECHNICAL SPONSOR

# TECHNICAL SPECS rev 01.2023



# VII MOTOSTUDENT INTERNATIONAL COMPETITION

2022 - 2023

## OFFICIAL TECHNICAL SPONSOR: AIM

AIM, through its Official Technical Service DSMR Racing Group joins the VII MotoStudent International Competition 2022-2023 as Official Technical Sponsor for the all MotoStudent teams.

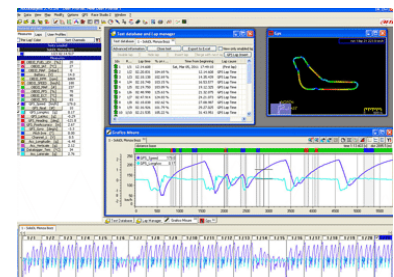


### AIM Electronics Racing Systems

AIM, established in 1976, is today a world leader in Data Acquisition for Racing applications. Its Official Technical Service DSMR Racing Group has developed two specific kits focused on the needs of the MotoStudent teams:

- MotoStudent Petrol Basic Kit: The base kit that will help MotoStudent teams to develop the prototype and achieve the optimum setup for the MS2 Phase Tests.
- MotoStudent Petrol Advanced Kit: A highest performance step to get a total parametrization of the motorbike.
- MotoStudent Electric Basic Kit: Specific system conceived for the monitoring of the electric propulsion system and basic dynamics of the motorbike. This system combines both CAN and digital inputs for a complete parametrization.
- MotoStudent Electric Advanced Kit: The top-level Kit for MotoStudent Electric teams, combining the data acquisition of the electric propulsion system with the dynamic parametrization of the motorbike.

All the Kits are available for extension with a great range of AiM sensors and devices.





## AIM Data Recording MotoStudent Petrol Basic KIT

### MyChron 5S

Dash – Data Acquisition. MyChron 5 includes a lithium battery with the possibility to connect to an external power supply. Includes RPM sensor, engine temperature sensor and lap time (GPS).

The main data recorded are speed by GPS, line, gyro (3 axis), accelerometer (3 axis), RPM, engine temperature...

Download is made by WiFi through Race Studio 3 Software.



### MyChron Expansion

The MyChron Expansion for MyChron 5 allows to connect a wide range of sensors like pressure sensors, potentiometers (not suspension), speed sensors, temperature... It allows to connect 4 analogic inputs or 3 analogic inputs + 1 digital. Sampling rate is 10 Hz.



### Lambda CAN

The AIM Lambda Sensor records the engine carburation in every moment, in order to adjust the air/fuel ratio with the maximum efficiency.



### “T” Adaptor for Engine Temperature Sensor

Adaptor to install a temperature sensor. It must be installed in the middle of the refrigeration hoses. The available connections are 15 or 20mm diameter, depending of the hoses installed.



### Signal Sensor Adaptor (Metallic Connector)

Adaptor to get the signal of every sensor already installed on the prototype.



## AIM Data Recording MotoStudent Petrol Advanced KIT

### MXM

Data Acquisition. To be connected to an external power supply. It includes rpm sensor, GPS, Lap Time (beacon and GPS) and CAN BUS connection.

Sensors can be connected to 4 configurable analogic channels + RPM input + 2 digital channels + 2 power outputs up to 15A. It's an expandable system with the possibility of customizing sensors and sampling frequencies.

Download is made by WiFi through Race Studio 3 Software.



### Lambda CAN

The AIM Lambda Sensor records the engine carburation in every moment, in order to adjust the air/fuel ratio with the maximum efficiency.



### Suspension Sensors

The stroke of the sensors can be 150 or 75mm. Connectors to the logger are included.



### Signal Sensor Adaptor (Plastic Connector)

Adaptor to get the signal of every sensor already installed on the prototype.



\*Temperature sensor and adaptor have been removed from the kit. If needed, any additional part can be ordered placing a comment in the purchase request form, with the same discount.

## AIM Data Recording MotoStudent Electric Basic KIT

### MXM

Data Acquisition. To be connected to an external power supply. It includes rpm sensor, GPS, Lap Time (beacon and GPS) and CAN BUS connection.

Sensors can be connected to 4 configurable analogic channels + RPM input + 2 digital channels + 2 power outputs up to 15A. It's an expandable system with the possibility of customizing sensors and sampling frequencies.

Download is made by WiFi through Race Studio 3 Software.

CAN protocol 100% configurable, adaptable for any necessity.



## AIM Data Recording MotoStudent Electric Advanced KIT

### MXM

Data Acquisition. To be connected to an external power supply. It includes rpm sensor, GPS, Lap Time (beacon and GPS) and CAN BUS connection.

Sensors can be connected to 4 configurable analogic channels + RPM input + 2 digital channels + 2 power outputs up to 15A. It's an expandable system with the possibility of customizing sensors and sampling frequencies.

Download is made by WiFi through Race Studio 3 Software.



### Suspension Sensors

The stroke of the sensors can be 150 or 75mm. Connectors to the logger are included.

### Motor Temperature Sensor

It can be a PT100 termo-resistance for water or a K Type thermocouple for air. Extension is included in the kit.



\*Adaptor has been removed from the kit. If needed, any additional part can be ordered placing a comment in the purchase request form, with the same discount.

## Contact

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### For orders:

1. You must complete the Excel file “DSRM Racing Group Parts Request”
2. You will receive a proforma invoice from DSRM Racing Group with the fee to complete the process.
3. Once the payment is completed, the order will be done and you will receive the Kit at your facilities.

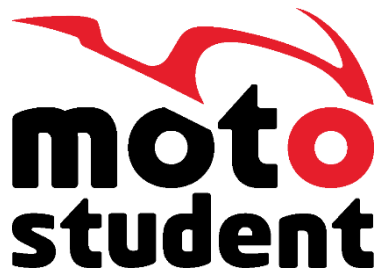
### For technical questions:

All technical questions about the AiM MotoStudent Kit must be directed to the DSRM Racing Group Technical Department – [technical@dsrmgroup.com](mailto:technical@dsrmgroup.com) with [faq@motostudent.com](mailto:faq@motostudent.com) in copy.

[www.motostudent.com](http://www.motostudent.com)

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