

## EMS helps BMW's Go Faster

BMW M (for Motorsport) series of cars was initially created to facilitate BMW's racing program, which was very successful in the 1960s and 1970s. Today these M-badged cars traditionally include modified engines, transmissions, suspensions, interior trims, aerodynamics, and exterior modifications to set them apart from their counterparts. All M models are tested and tuned at BMW's private facility at the Nürburgring racing circuit in Germany.

### The Problem

BMW recently introduced a "light version" of the latest M3 but it was only made available in Europe. A couple of the key elements to the new lightweight version in addition, to weight saving measures is a carbon fiber rear decklid spoiler and front chin spoiler. These spoilers give the car a unique and aggressive look to them. Since many BMW owners in the US wanted to have this same look, RSC Tuning in Miami, FL wanted to offer these products as an aftermarket accessory. RSC Tuning has been building aerodynamic kits for high end cars like Lamborghini, Maserati, Ferrari and more. Since RSC didn't have any 3D Scanning & CAD modeling capabilities in-house they decided to find a vendor to help them out.

### The Solution

After contacting numerous 3D scanning service providers, RSC decided EMS was the best company to complete this project. EMS's extensive background in 3D scanning automobiles and staff of industrial designers and mechanical engineers was the deciding factor. EMS used their Creaform EXAscan hand held 3D scanner to scan the front and rear of a brand new BMW M3. The Creaform 3D scanner worked very well on this project because it could easily scan the underside of the front of the car as well as the trunk lid. In addition, the EXAscan 3D scans dark surfaces very well as the BMW RSC provided was shiny black.

Once the 3D scanning was done, EMS's industrial design staff designed the front & rear spoilers based on images and drawings using RapidForm XOR software. This allowed EMS to design the spoilers so they fit perfectly to the cars body panels. Upon completion of the 3D CAD models, EMS then CNC machined the master patterns that would be used to build the tooling to create the carbon fiber parts.

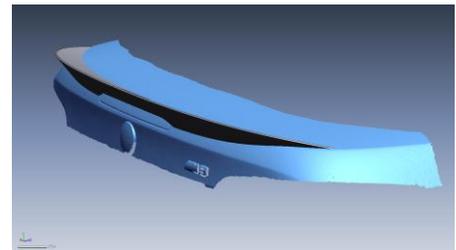
### Conclusion

When it comes to 3D scanning any type of automobile and design aftermarket components EMS has the equipment, staff and knowledge to get the job done right.

Visit [www.ems-usa.com](http://www.ems-usa.com) to learn more.



3D Scanning a BMW M3



EMS designed rear spoiler



CNC machined master patterns of chin & rear spoiler