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**Garofalo et al.**

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(54) **AUTOMATED ELECTRIC VEHICLE CHARGING STATION**

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10/7072; Y02T 90/12; Y02T 90/14; Y02T  
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See application file for complete search history.

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(57) **ABSTRACT**

An automated electric vehicle charging station. The charging station can include a frame to which a vehicle can park in proximity to receive an electric charge. The frame is at least partially underneath the vehicle. The charging station can include an alignment indicator and a charging indicator to alert an occupant of the vehicle to a vehicle alignment status and a vehicle charging status. When the vehicle is parked in a charging position, an electronic charging unit automatically determines a receiving location on the vehicle where the vehicle can receive an electric charge. A charging plug can be stored in the frame and can be actuated out of the frame and travel in multiple directions to the receiving location. Electric charge can then be transferred from the charging plug to the vehicle. When the vehicle is finished charging, the charging plug can be actuated to return to the frame.

**20 Claims, 8 Drawing Sheets**

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(52) **U.S. Cl.**

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(58) **Field of Classification Search**

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