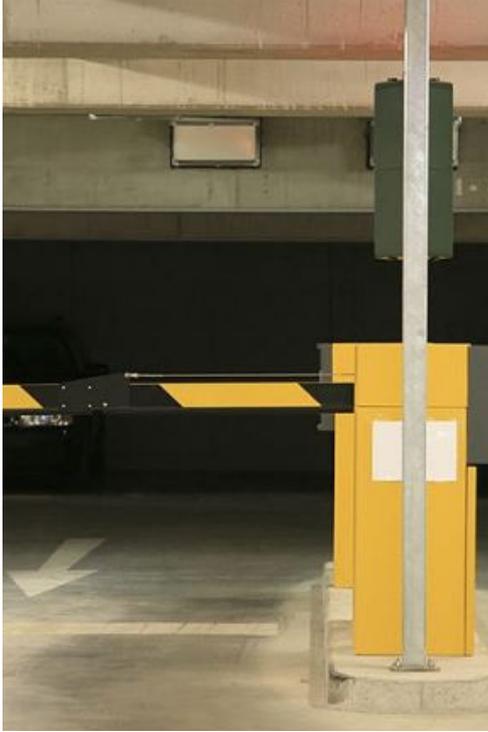


CASE STUDY



OBJECTIVE

The Industrial Shields equipment must be able to detect correctly the parking card, check if the user is part of the allowed users, and open the gate in case the statement is correct. On the other hand, you must also be able to manage the users database remotely through a server in the cloud. The process of reading the card will be shown on a Industrial Shields Panel PC to the user while he is making the entry.

FINAL SOLUTION (HARDWARE)

An RFID sensor (RC522) is used to read the card using the Weigand 26 communication protocol via SPI/I2C. Once the user is confirmed, the Ethernet PLC will act on the servomotor to open and subsequently close the gate. Next to the RFID, an Industrial Shields Panel PC connected to the Ethernet PLC is installed through the serial port using UART protocol to monitor

the status of the card reading process. For the database, the server system will be connected to the cloud and if it is modified, the Ethernet PLC is notified and modifies the local database in the SD memory.

