

Agriculture Core Sampling

Challenge: Identify the geographical origins of soil samples taken by a robot.

Solution: A Cognex Dataman 262 mounted directly to the robot.

Story: An agricultural startup company reached out to the engineers at EMP for help with a bar code scanning application on a robotically controlled vehicle. The company manufactures systems that travel out into farmland and collect soil samples from various locations. These samples are then tested for their content, and recommendations can

be made as to what nutrients need to be added to the soil and where. Later, follow-up samples can be taken at the exact same locations to ensure that the soil was treated properly.

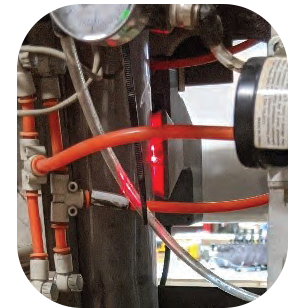


The problem was identifying what soil sample came from each location. Without knowing the location of the original sample, any follow-up samples would not be able to show direct correlation after the applied nutrients. The solution was to add data matrix bar codes as the soil samples were being collected and bagged. This required a bar code scanner that could read the data matrix code reliably and from a distance and that would stay clear of the moving machinery.

EMP recommended the Cognex DataMan 260 for

its small size, reasonable price, and excellent read range.

After beginning to print barcodes on the bags and installing the new scanners, the customer now has a much more accurate and efficient system. Bagged soil samples are now clearly marked and their collection location stored by the robot for reference. The customer says that the operators love the addition of the bar codes and scanners and the appearance of their system, and samples are now much more professional.



Do you have an application needing location services? Contact EMP today!