

PLATE PREPARATION

Plate Preparation is a space-saving, modular, and scalable cobot solution. The solution can easily be integrated in any existing production set up ensuring hygienic, efficient, and gentle handling and palletizing of agar plates in various sizes.



Challenge

Especially within Life Science production it is essential to provide a high level of product safety. This involves systematic monitoring to minimize the risk of contamination.

Manual handling of agar plates is repetitive, costly, and human violations of hygienic standards may cause contamination.

SOLUTION OVERVIEW

Plate Preparation is an innovative, space-saving automation system comprising two UR3e cobots.

- + The two cobots are equipped respectively with a Robotiq E-pick vacuum tool and Robotique Hand-E grippers with specially designed gripping fingers.
- + The solution also includes combines an infeed conveyor belt, a fixture, two line sensors, and ultrasonic sensors. These verify whether the plate diameter is either 60 mm or 90 mm agar.
- + The built-in ultrasonic sensor in the vacuum cup detects whether the lid is loose or locked. If the lid is locked, one cobot moves the agar plate to the lid station. Here, a cylinder with an attached vacuum suction cup loosens the lid and leaves the plate at the lid station.
- + When the agar plates are palletized on the outfeed trolley, the system stops, and an operator is automatically notified to replace the trolley.





TECHNICON CASE

Solution Benefits

- + Strengthening productivity and minimizing the human factor.
- + **Plate Preparation** is a safe, collaborative and space-saving fully automated solution ensuring efficient and gentle handling and palletizing of agar plates in varying sizes.