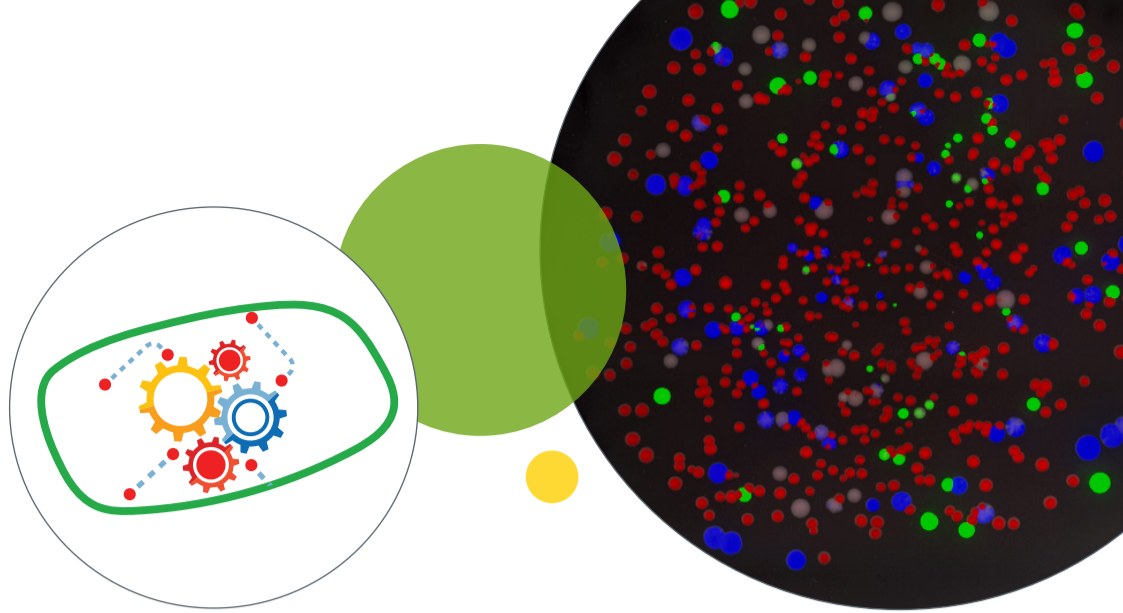


# Colony picking in synthetic biology



## MICROBIAL COLONY PICKERS

- Pick colonies accurately and efficiently using organism-specific pins that maximize material transfer
- Avoid cross contamination with a reliable pin sterilization process
- Support a range applications such as synthetic biology, metagenomics, biofuels, blue/white colony screening and many more



**QPix 400 Series**  
Microbial Colony Pickers

## WHAT IS SYNTHETIC BIOLOGY?

Synthetic biology is a broad term that refers to the manipulation of metabolic pathways to force microbes to perform a specific biological action (often to over-manufacture molecules or proteins). Sometimes, individual genes are manipulated. Other times, entire organisms are modified for desired characteristics.

However, what appears to differentiate synthetic biology from other disciplines in which this definition may also be appropriate is the use of engineering principles to design and construct biological materials. For example, many synthetic biologists use the strategy of design, build, and test to create their biological material of interest. This strategy is borrowed directly from engineers.

## PICKING THE RIGHT COLONIES

For the synthetic biologist, biological 'building blocks' are often generated from bacteria, and the cyclical 'design-build-test' process often requires screening and picking colonies of interest. Traditionally, colony picking is performed manually using sterile pipette tips or inoculation loops, which are usually slow, labor intensive, and time consuming. Synthetic biology research can therefore benefit greatly from the flexibility and throughput of an automated colony picker. Not only will automated colony pickers make the entire process quicker (up to 3,000 clones per hour), but the results are more consistent and reliable.

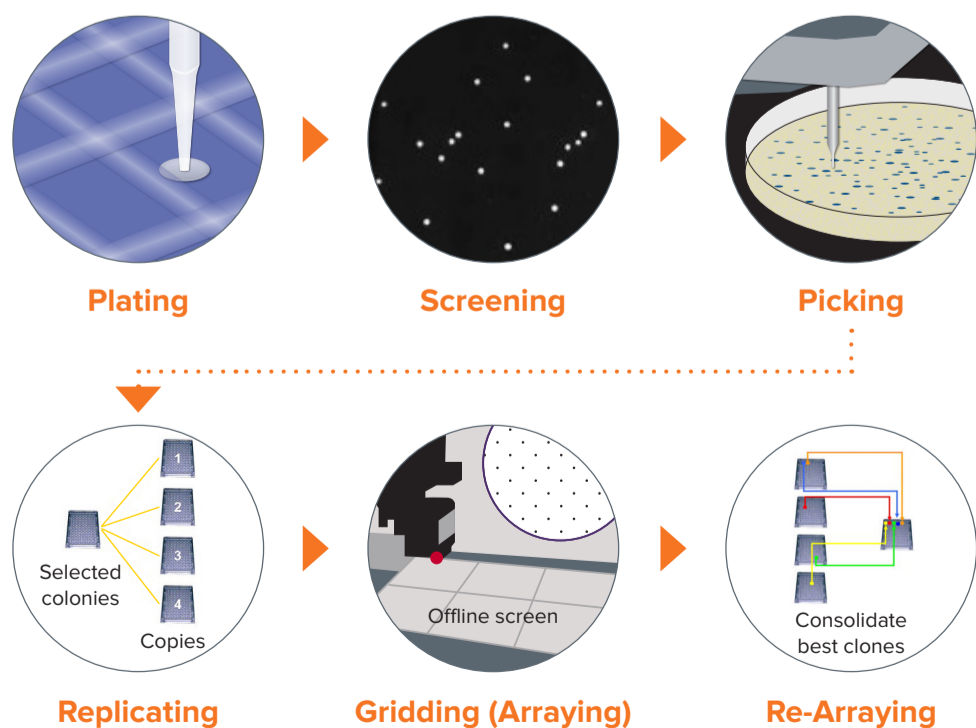
## BENEFITS

- Enables higher throughput, while minimizing manual labor
- Provides consistent, objective colony picking instead of subjective, manual picking
- Accommodates a broad range of different applications and automations with versatile features, such as fluorescence screening and liquid handling
- Electronic data tracking allows for well-documented data control

## QPIX 400 SERIES MICROBIAL COLONY PICKERS

Our automated microbial colony picking systems offer you the unique option to simultaneously detect colonies and quantify fluorescent markers in a pre-screening step before picking.

## A TYPICAL QPIX MICROBIAL COLONY PICKER WORKFLOW



## ANATOMY OF A QPIX MICROBIAL COLONY PICKER

