

# WHY BIOLOGICAL PROTOTYPING SUCKS AND HOW TO FIX IT



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# BIOLOGICAL PROTOTYPING



## BIOLOGICAL PROTOTYPING – THE PAIN

- Done by hand
- Slow
- Failure points are difficult to detect
- Failure is costly
  - 60% have to repeat the experiment
- High Cognitive load



## PREVIOUS ATTEMPTS

- Electronic Lab Notebook Software
  - Non-natural interface, Keyboards are dirty
- Electronic pipettes
  - Isolated from other equipment, gimmick
- Data collection software
  - Not centralized, poorly documented and poorly designed

**This ought to be better!**

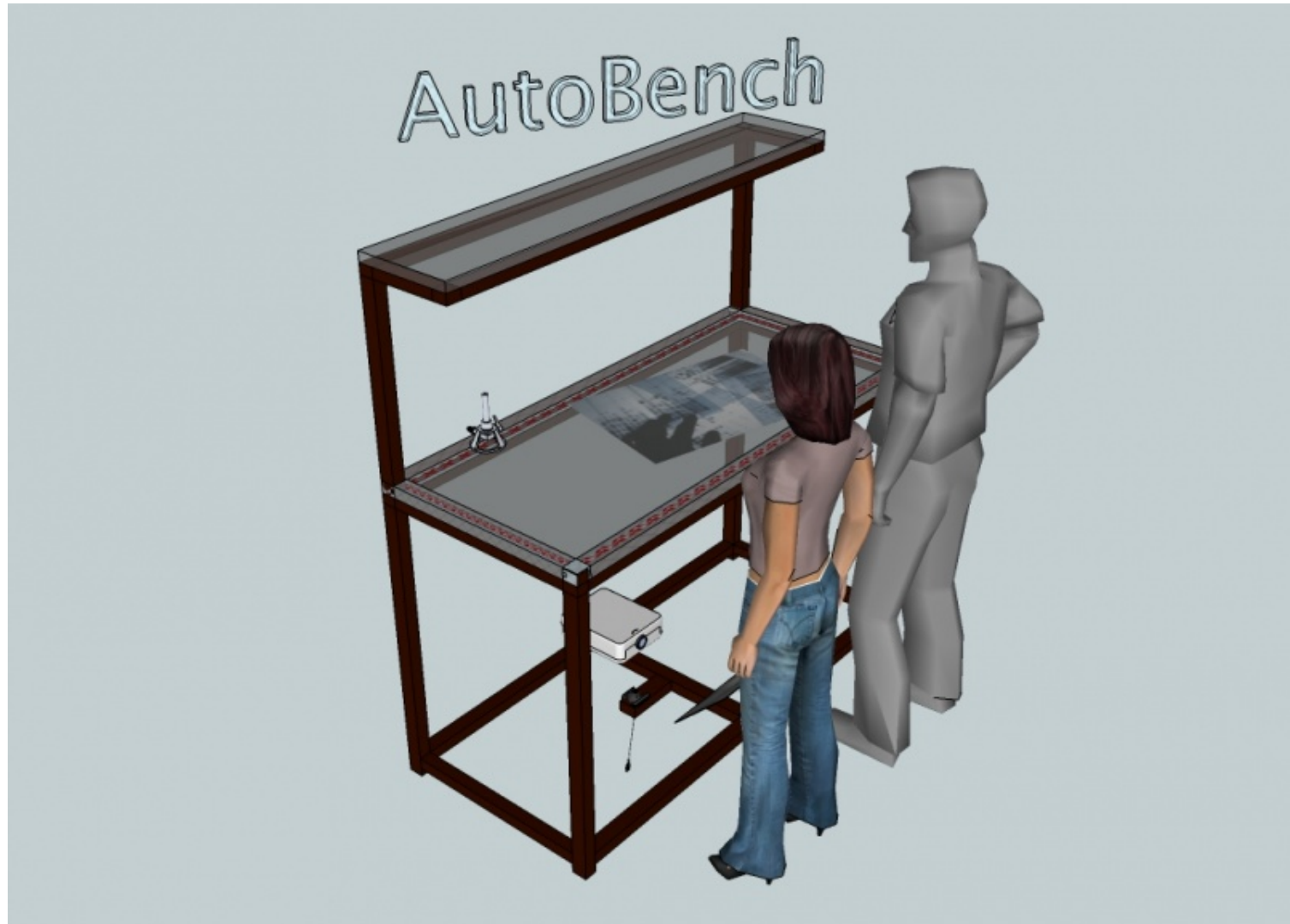


## SOLUTION SPECIFICATIONS

- Easy to use
- Reduce cognitive load
  - Taking care of mundane tasks
- Help visualize science
- Highly Customizable/Flexible



# 1) THE HARDWARE



## 2) THE INTERFACE

# DEMO



# BUSINESS PLAN

- Doubled Cost: ~ \$5000

(When sourcing materials from Amazon...)

- Typical equipment cost: ~\$20 000



## I NEED

- Funds for a full prototype  
(2m x 1m TouchTable)
- Funds for software coding
- Legal advice



THANKS!

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## OUTLOOK

- Motion sensing
- 3D Printing of molecules  
(candidate screening)
- Speech to text technology

