

M1.03 Bluewater Hardware

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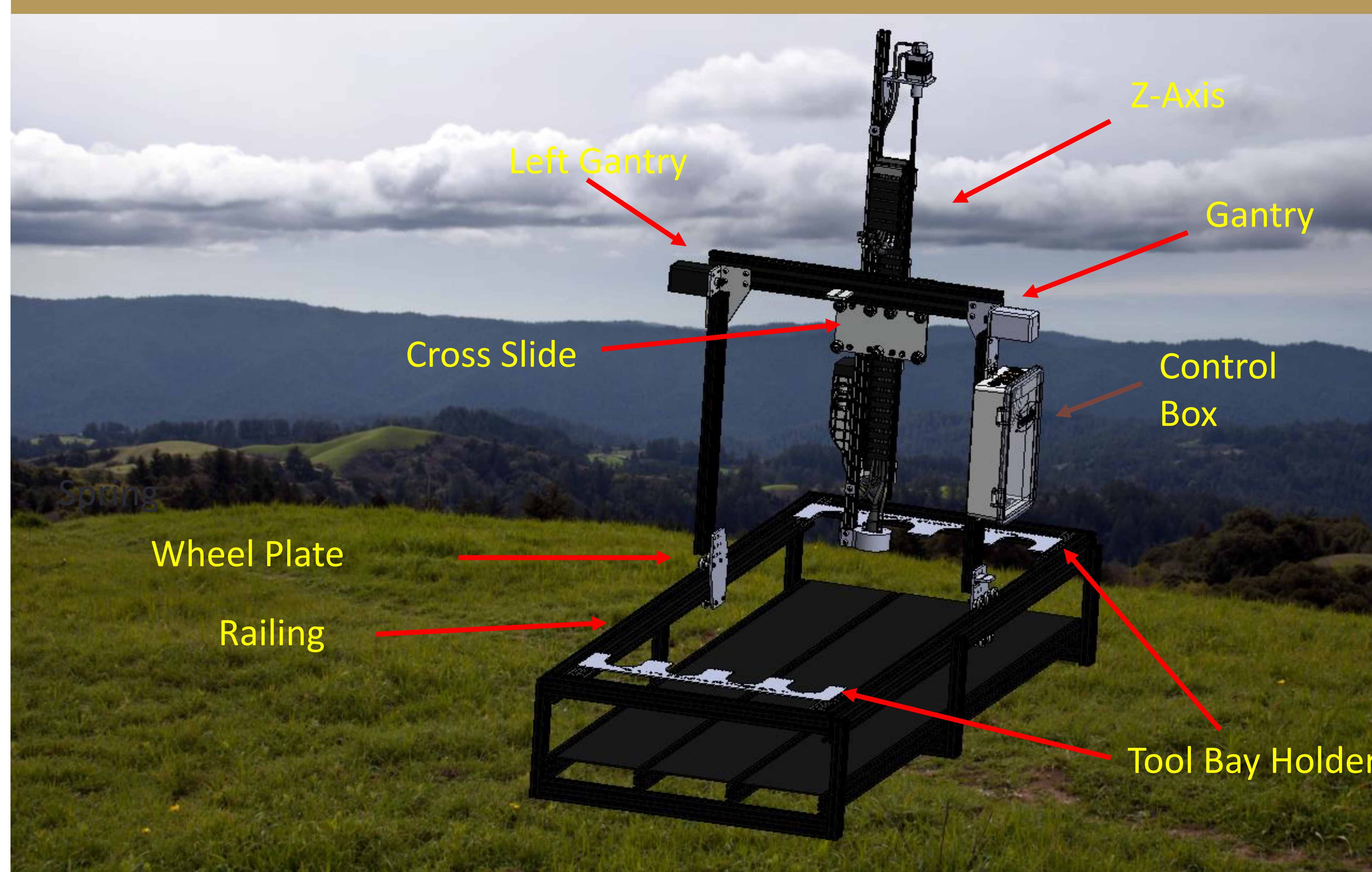
Problem

- Designing, fabricating, and implementing modifications to the FarmBot system to give the user accurate watering, fertilization, and distribution of different seed sizes.

Manufactured Parts

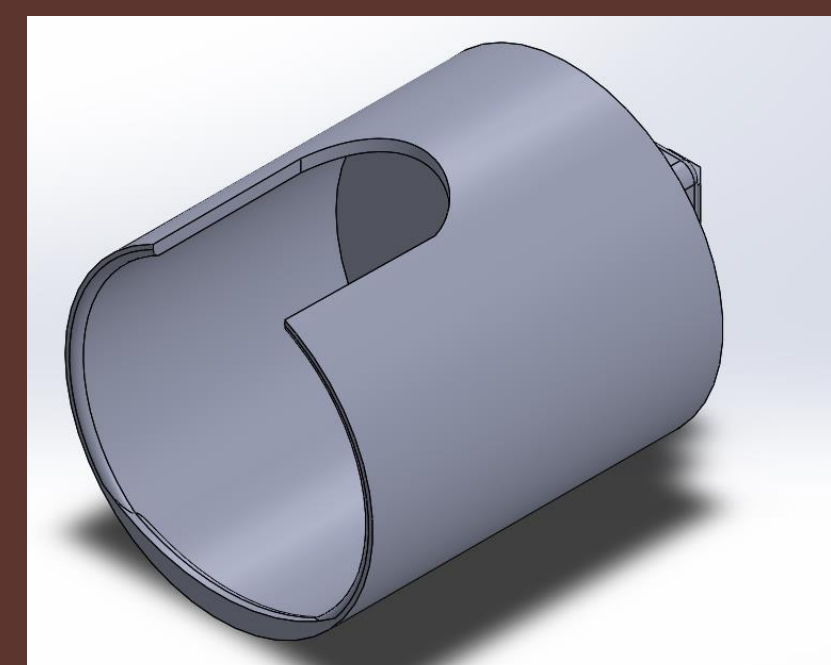
- ❑ Redesigned attachment for more simple add-on modifications (needle attachments, hopper attachment, watering nozzle, etc.)
- ❑ Nozzle attachment for mobile and accurate seed placement
- ❑ Lightweight sleek hopper design (implemented for 3 seed sizes)
- Working in conjunction with the Software Bluewater team
- ❑ The mount/housing for the solenoid valve

Machine Design

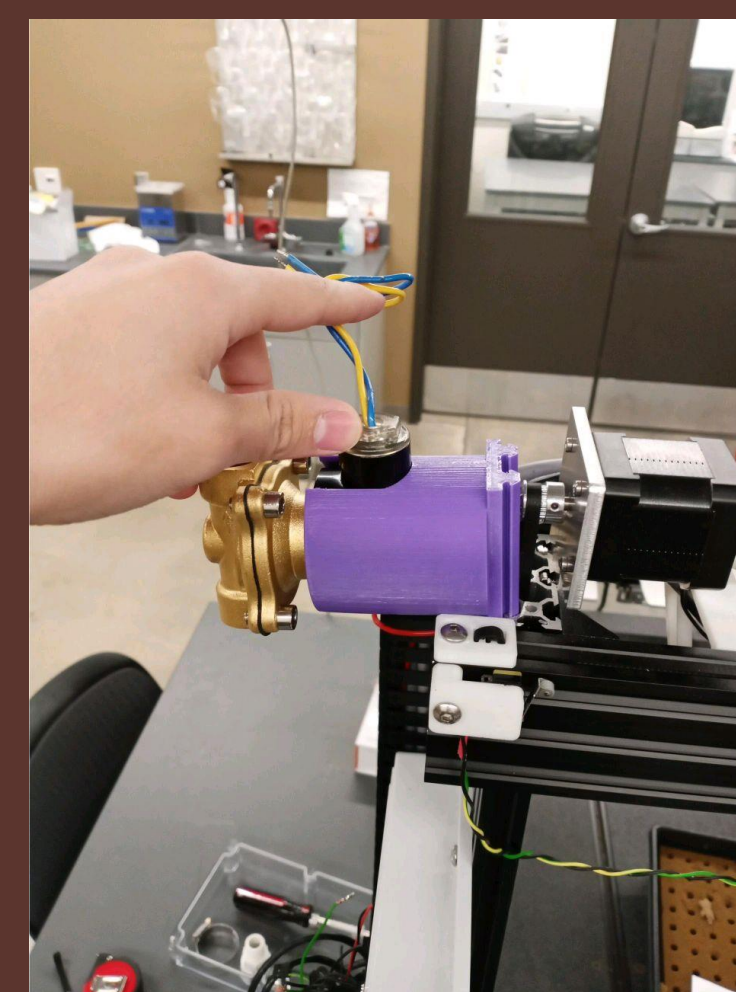


New Designs

Solenoid valve (Housing)

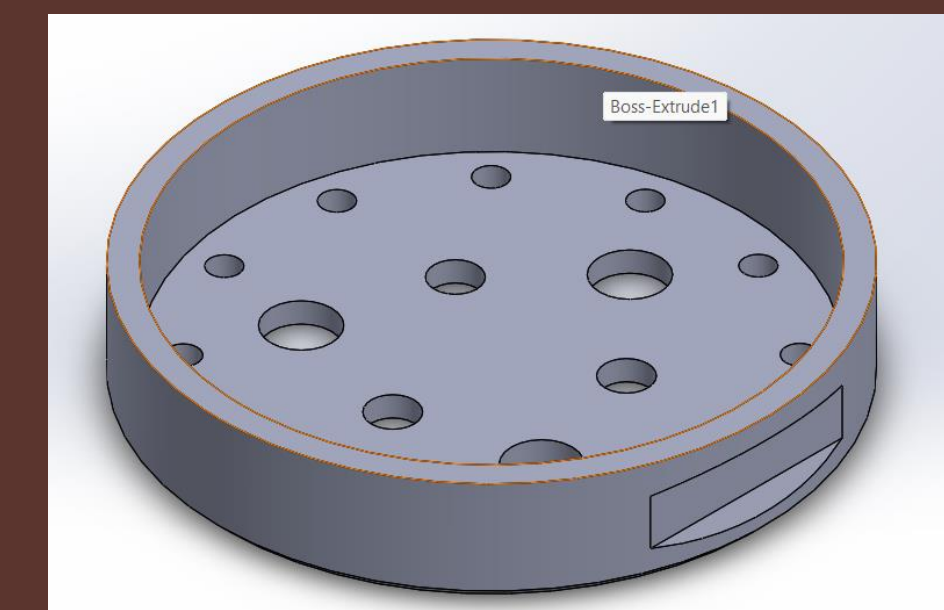


❑ Figure 1
 • Solenoid valve Model

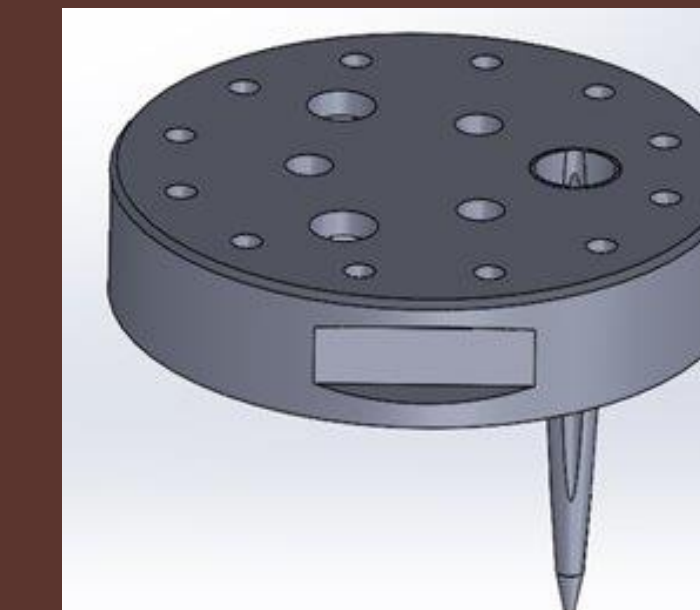


❑ Figure 2
 • Slide in design with the solenoid valve in the housing

Watering Nozzle



❑ Figure 3
 • Nozzle mount Redesign

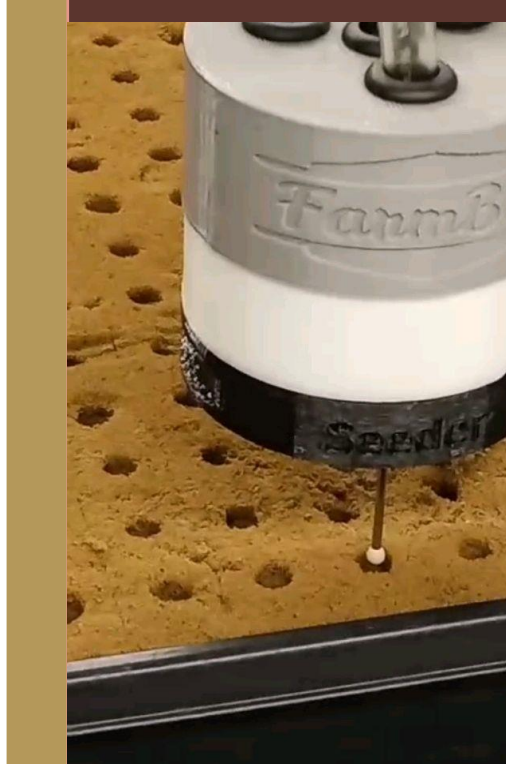


❑ Figure 4
 • New watering nozzle attachment

Future Scope

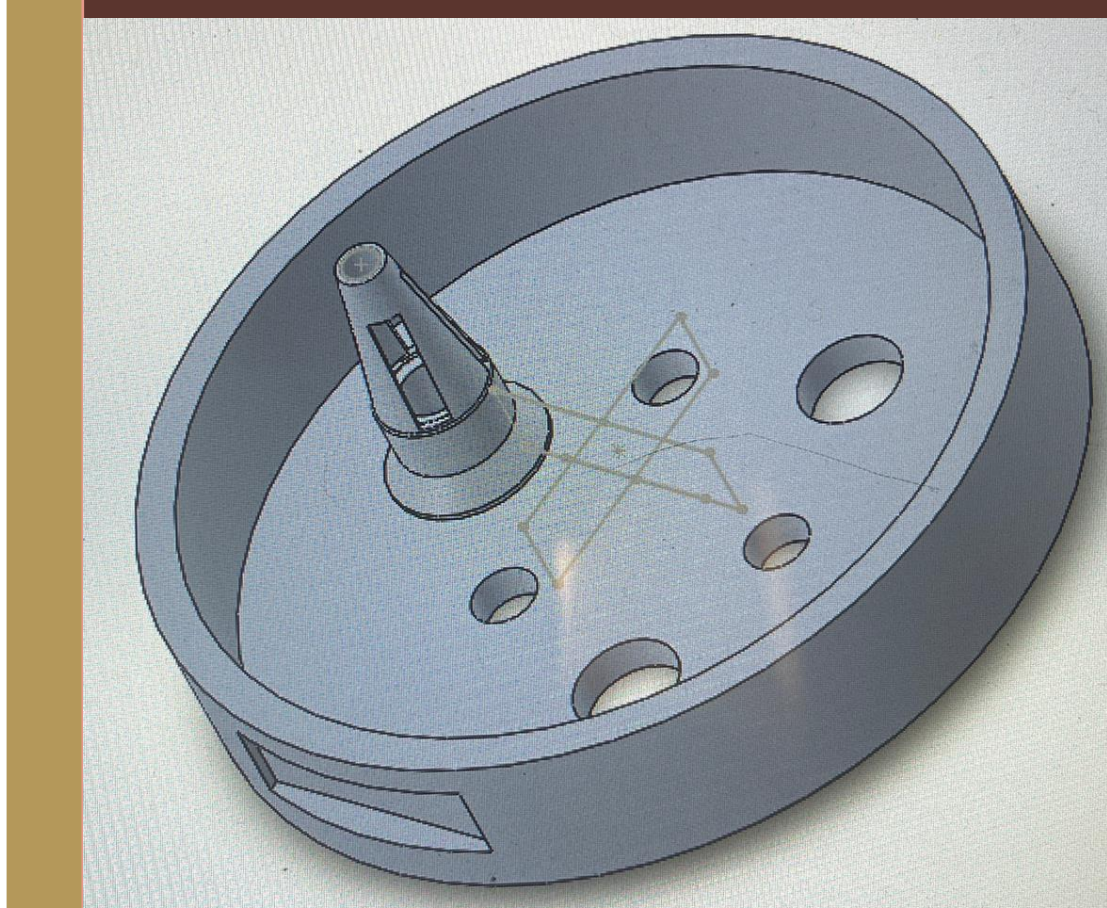
Conceptualization

- Customer needs:
 - ❑ Automatic seed dispensary
 - ❑ Watering system
 - ❑ Nutrition system



Old Hopper Design

- ❑ The first Hopper Design included an attachment to hold the needle sizes that correlated to the different seed sizes



Old Hopper Design

- ❑ The new hopper design will implement a mechanical design demonstrated by the super seeder

