**Problem and Scope**

Water availability is a constant issue for people in less developed regions around the globe.

With the SB-1 Project the team would introduce a vehicle that is capable of navigating these less developed regions to drive wells for villages and local farms focusing on aquifers close to the surface.

The goal is to not compete with current commercial well-driving, but to have a cheap alternative allowing these less developed regions to have clean, easily accessible water sources.

**Solution**

Implementing weights to double total weight of Ram.

With a heavier load the tubes driven can reach further depths.

**Results**

The SB-1 Project has implemented designs for safety, cost effectiveness, and efficiency. By utilizing the frame of an earlier PUP project the SB-1 is designed to fulfill all requirements.

By being a cost effective solution it will be able to compete with multi-thousand dollar commercial wells in less developed regions.
Features:
- Can drive in varied terrain with ease.
- Can drive wells to reach aquifers.
- Safe, easy to use operation allows for quick production of wells.

Impact:
In the short term, the project will be continued through further research, validation, and testing by grad students.

In the long term, the plan is to have multiple vehicles in less developed areas producing wells for those who need it.

Value Proposition:
Where commercial drilling costs 5 to 6 thousand dollars this project offers a cheaper, cost effective solution.

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<tr>
<th>Well Depth (ft.)</th>
<th>Cost ($)</th>
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<tr>
<td>20</td>
<td>$232.26</td>
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<tr>
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(Baldwin, 2022)

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Tyler J. McPherson, Ryan Solomon, Michael Fidler
Sponsor: Dr. Robert Stwalley III
Instructor: Dr. John Lumkes

SB-1 Improvements to The Well-Driver PUP

Striking Water Scarcity One Well at a Time