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## EasyDig

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## EasyDig

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### Client Story

- “A” is a 62-year-old female
- She has difficulties with bending at the knees and kneeling for long periods of time
- She has pain when kneeling to dig into the ground & has weakness when digging for planting
- “A” has trouble gardening because of this

### OT & ID Collaboration

- In this collaboration, OT students used their expertise of occupations and industrial design students used their expertise of universal design principles
- Together, the OT and ID students created a solution by combining their strengths



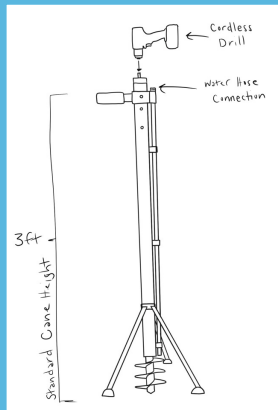
## Device Development

### Device Revision and Final Prototype

- Received client feedback regarding device concept, function, and accessibility
- Incorporated client feedback and evidence from testing into the final prototype



### Brainstorming and Idea Selection



**Gardening**  
(particularly digging holes)  
was identified as the project focus area based on information gathered from the initial client meeting

- Explored concept ideas through initial sketching and researching existing products on the market
- Visualized final selected idea through a drawing and an initial mock-up: a self-standing auger with a water hose connection, operated using a cordless drill

### Functionality & Impact

#### Functionality:

- A cordless drill attaches to the device, powering the auger to drill into the soil
- A water hose can be attached to allow for softening of soil
- Legs allow the device to stand on its own

#### Impact:

- The height of the device (about 3 feet) allows for digging while standing, reducing knee tension and bending at the hips
- Using a cordless drill conserves the client's energy

### Considerations & Next Steps

#### Considerations:

- Certain models of power drill may cause the device to become top heavy
- More stability testing is needed for steep slopes
- The hose attachment site is too close to the power drill

#### Next Steps:

- Easily switchable auger heads for different sized holes and tasks
- Repositioning the drill to attach perpendicularly for a more ergonomic grasp
- Adjustable legs for a larger footprint or smaller spaces