Root Rover

Mechanized crop-thinning device

Yellow B
Root crop thinning is necessary and tedious

**Process:** Root crops are over-seeded, but then must be thinned for full growth

**Problem:** Small farms do it by hand, making it a tedious and time consuming process

[Image: https://www.vegetablegardener.com/item/3510/thin-plants-for-a-healthy-crop]
Process

Before thinning

After thinning

Root Rover
Existing products do not serve small farms

Existing solutions are expensive, bulky, high maintenance, and impractical for the small farmer

http://www.grimmeuk.com/veg_tech/harvest_tech.php

US7032369

Root Rover
Local farms confirmed the need for a mechanized crop thinner

- The Farm School-Tyson Neukirch
  - Athol, MA

- Deepening Roots Farm-Bill Gillen
  - Amherst, MA

- Old Friends Farm-Casey Steinberg
  - Amherst, MA
Root Rover is the answer for small farms

• Affordable and easy to use
• Makes the thinning process faster and more cost effective
• Tractor attachment or hand push device

Root Rover
Root Rover
CAD Model
Moving Forward

- Our blade curvature and design were not ideal
- More force needed
- More rigid handle