

Oregon State University - Life in Space Retractable Blade to Dispense Tape

After careful consideration and discussion with NASA Astronaut Don Pettit about our previous nail clipper idea, our design pivoted towards a new and improved tape dispenser. During our conversation, one annoyance Don expressed about life in space is the lack of a tape dispenser that can be used with one hand while working. Tape dispensers currently are not allowed aboard the ISS because of the potentially dangerous sharp edges. An ideal design would have a retractable blade to hide these edges.

Our design currently uses a straight-edge, box-cutter blade to cut the tape. As the tape is pulled from the dispenser, the blade rises at a slight angle, such that there will be more concentrated force to cut the tape. Once the tape is cut, tension is released, and the blade lowers safely back into concealment.

Picture of Team



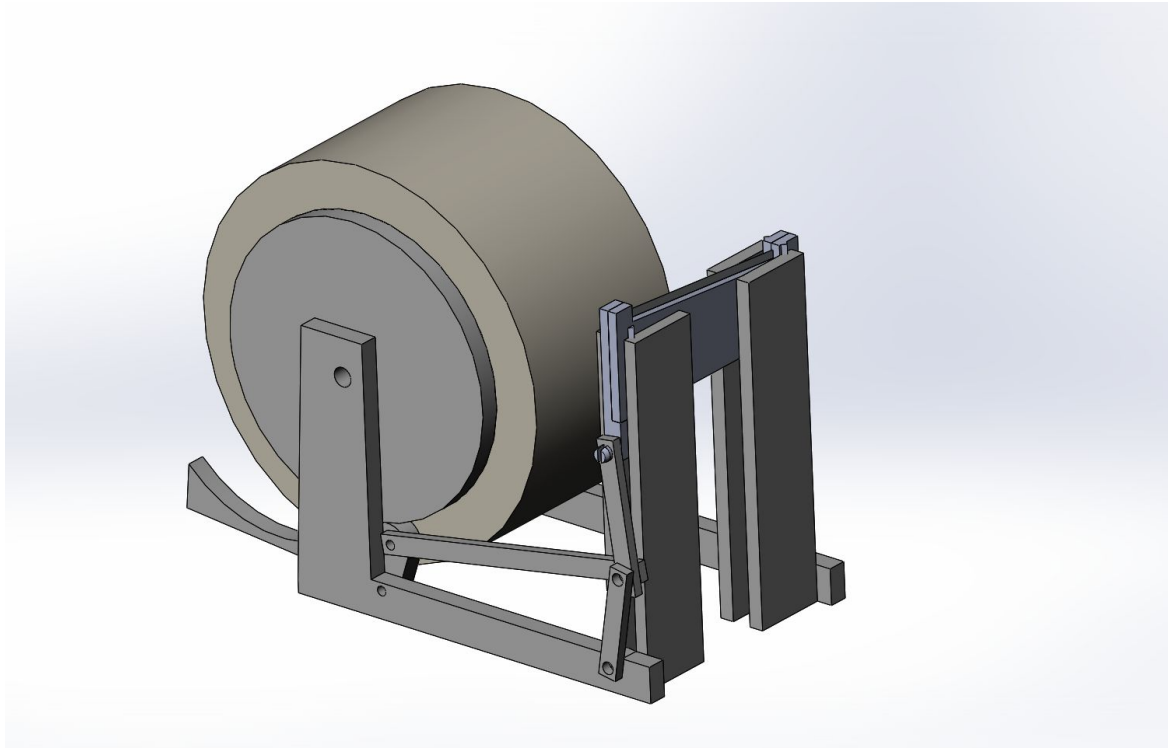
Behnam Saeedi

Scott Laughlin

Jacob Dawes

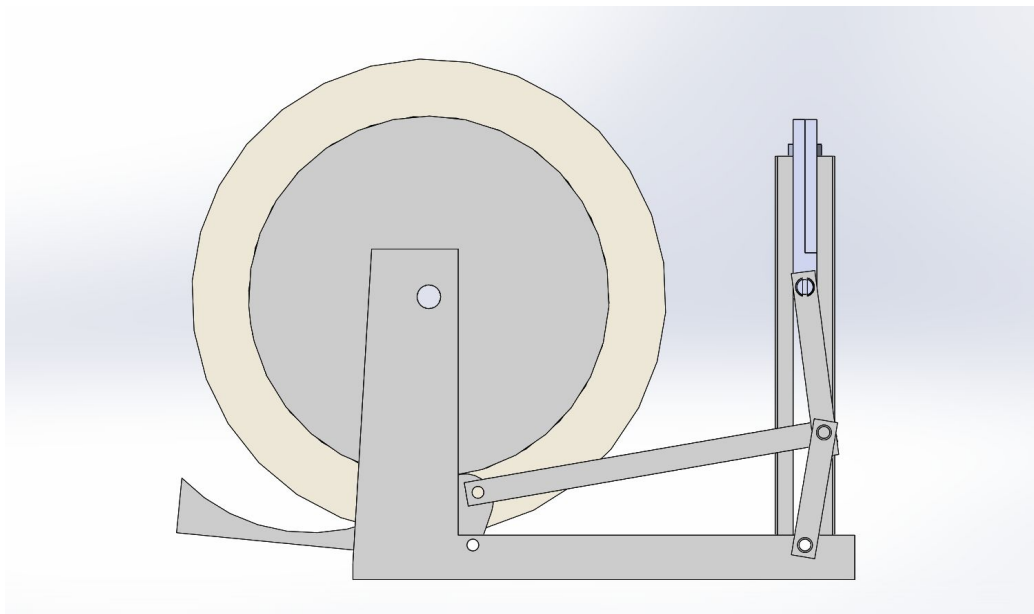
Hanna Anderson

ScreenShot 1



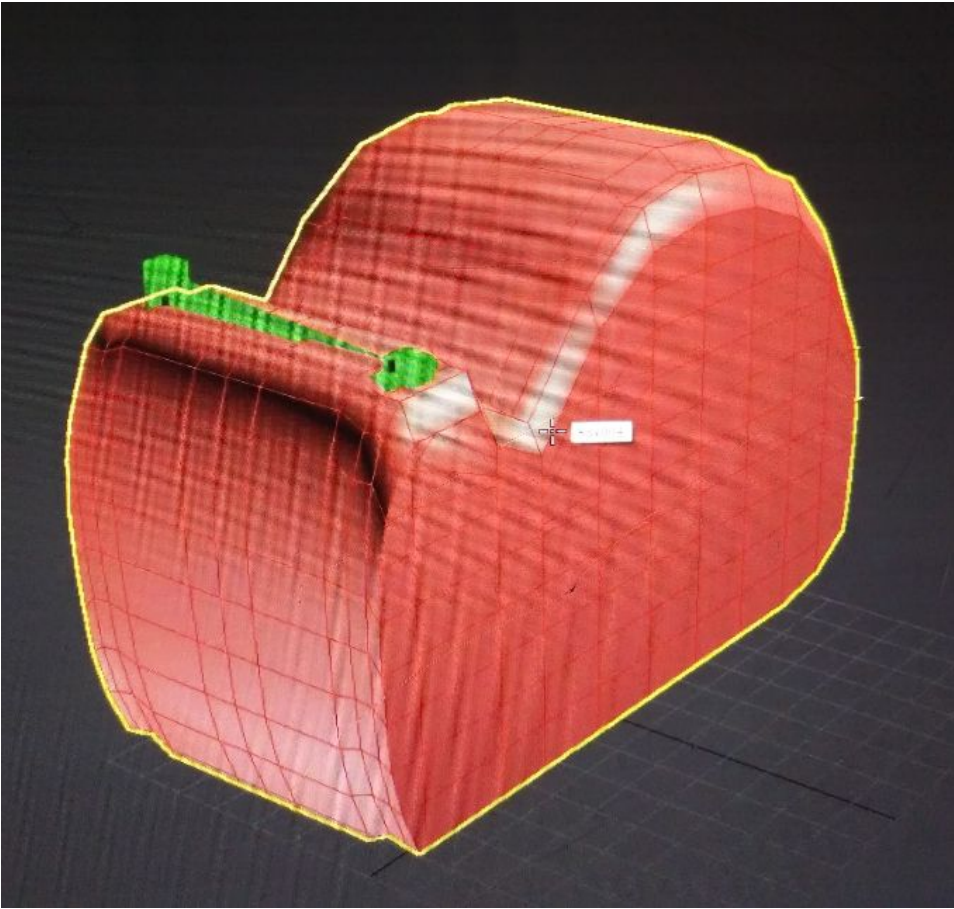
Orthographic view of the mechanism

ScreenShot 2



Side view of the mechanism

ScreenShot 3



Casing of the mechanism