Paramount Power Plow

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The purpose of this project is to aid individuals and communities by moving snow. A robotic snow plow would be able to be controlled from inside a house to remove snow from sidewalks and driveways. To begin, create two frame rails out of aluminum. Next, mount the motor, servo steering, and motor transmission to frame rails. Mount the front and rear suspensions to frame rail. Mount two speed shifter and interlocking differentials to frame rails. Mount the brain, motor controller, and plug in wires. Zip tie wires to avoid damage. Build the front bracket using aluminum sheet metal. Use 1/2 x 1/2 to build an A frame. Add a piece of flat stock to the top of the A frame. Use the 3/4 x 1/2 to build an attachment piece for the winch. Bend the aluminum piece to form a radius plow allowing the snow to roll off the other side. Take the other 1/2 x 1/2 and attach to the center of the plow and pop rivet it on. Attach the 1/2 x 1/2 piece to the A frame. Use the 1/2 x 1/2 as the structural pieces to extend from the center of the machine to reach out . Pop rivet the 1/2 inch flat stock to the bottom back of the plow to create a cutting edge. The snow plow is able to push snow up to four inches deep. This project was a scaled version of what would be a feasible solution to being able to stay inside while plowing your driveway and sidewalks.

Awards Won: