Abstract

Agriculture has been one of the most leading sources of natural resources in the world, which provides both humans and animals the basic necessities for life. One common necessity is the consumption and use of food. By applying the aspects of Skid Steering to form a skid loader will generally allow the amount of speed and efficient use of power to dirt bound surfaces. Skid Steering is the use of hydraulically powered motors to move a gear train that supplies movement to generally oil laden gears. This allows the increase of torque. Not only does the percentage of torque increases but this action causes a retardation in wheels causing it to maneuver favorably as oppose to the conventional steering of cars. This form of driving allows a smaller turning radius in one fixed position, as the conventional steering of cars does not. With this steering it general gave the traction between the ground and its wheel (the increase of the wheels pulling power). This form of steering combined with the obstacle avoidance method coexisting with the robot generally move better. Our general goal is to create a more advanced form of steering through a drive system made for strictly manual steering by human control into an autonomous control system. The robot was able to easily gain traction on dirt as well as avoid obstructions in its path.