# R.O.T. (Rate of Travel) Slide

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The R.O.T. Slide, R.O.T. standing for “rate of travel” is an original project that was engineered to steady a welder’s arm while cutting metal. I decided to create a solution to a problem that I was encountering as a welder. The torch used in welding, for cutting, is heavy and big, so it is difficult to create a smooth, even cut, especially with the weight of the oxy-acetylene torch. It is difficult to get comfortable. The R.O.T. Slide can assist with the physically taxing task of cutting. I wanted to create something that can not only stabilize a welder’s arm but also move with the welder. I have created three prototypes, all with a similar design of a metal plate with four wheels. My latest prototype does have metal sides to fit the welder’s arm and is covered in leather to dissipate the heat of the torch. Cutting metal free-handed resulted in a very rigid, uneven cut. The R.O.T. Slide resulted in a very smooth, even cut and it also took a lot of the weight of the torch, off of the welder’s arm.

**Awards Won:**