
MEMORANDUM

TO: PROFESSOR DURANT
FROM: STUDENTS JOHN JENSON, ERIC DOUGLAS, BRIAN
SUBJECT: RECIPROCATING SAW PROPOSAL
DATE: 04 APRIL 2016

PROPOSAL

The design project the group is considering is based on a reciprocating rack and pinion design found on the internet. Its basic structure is hand drawn on the following pages (fig 1). The design is composed of three parts: pinion gear, rack, and rack mount. The spinning bit is inserted into the center of the pinion, causing it to oscillate along the rack. This will convert the drill's rotation energy into linear motion which the saw blade will use to cut through the wood. The group will manufacture at least one part using AutoCAD and machining.