

Animated Head Popper Mechanism

Materials:

- 1x deer motor
- 1x Aluminum flat bar
- 1x 3/8" X 4-1/2 inch lag screw eye
- 1x 1/4-20 X 1.5" Bolt
- 2x 1/4-20 Nuts
- 1x 1/4-20 locking nut
- 2x small lock washers
- 4x 6-32 2" mounting screws
- ~24" piece of 2x4 (post, depends on height of tombstone)
- 12" piece of 2x6 (base)
- 2x wood screws

Tools:

- Drill w/ 1/4", 5/32", 9/65", and 1/8" bits (wood, metal, & plastic)
- Philips screw driver (or drill bit)
- Hacksaw (I'll have one to share if you don't have one)
- Pliers (to tighten nut)

Notes:

- Drill bits are based on Monster Guts deer motor
- Length of post and prop bar will vary based on height of tombstone

Instructions:

1. Cut 5" length of aluminum flat bar (motor bar), remainder will be for prop bar.
2. Drill 5/32" hole near one end of motor bar.
3. Drill 1/4" hole near other end of motor bar and near one end of prop bar.
4. Drill 1/4" pilot hole near one end (top) of post.
5. Drill XX pilot hole **on** other end (bottom) of post and one end of base.
6. Prep motor:
 - a. Remove arm screw and save
 - b. Remove arm (discard)
 - c. Remove 4 main screws (discard)
 - d. Carefully use 9/65" bit to widen holes and open bottom to allow for mounting
7. Assemble base:
 - a. Screw base and post together with wood screws
 - b. Screw lag screw eye in to 1/4" pilot hole at top of post
8. Assemble linkage:
 - a. Use 1/4" bolt to connect motor bar to prop bar with the following order:
Bolt head > motor bar > 2x nuts > prop bar > lock nut
Leave space for the prop bar to rotate freely, but not too loose.
 - b. Use arm screw to attach motor bar to deer motor with following order:
Screw head > lock washer > motor bar > lock washer > motor shaft
9. Test and position:
 - a. Feed prop bar through screw eye and place deer motor flat against post.
 - b. Leave at least ~10" between screw eye and motor.
 - c. Plug and test motion... you'll need to move motor up and down until you figure out the best position. Be sure to keep in mind that you'll be attaching a skull or such to top so there needs to be space for that on the prop bar.
 - d. Mark top of motor once positioned
10. Mount motor
 - a. Use Monster Guts template to drill pilot holes (1/8")
 - b. Attach with mounting screws