

Ballistic Launcher ELO
Construction Journal

Day 1: 10-10-17 Hole was drilled through PVC pipe, and two six inch wooden blocks were cut out to be used as posts to hold up the PVC pipe.



Day 2: 10-11-17 Wooden posts cut to 1.5 inches long and wide and 6 inches tall. Posts not yet mounted to base.

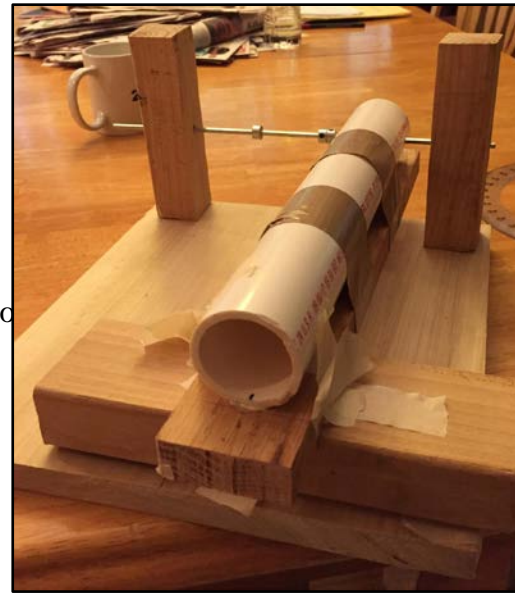
Day 3: 10-12-17 Each post nailed into wooden base.





Day 4: 10-13-17 Cut wood that PVC pipe will be mounted on and wood that motors, batteries, and wheels will be attached to underneath the pipe

Day 5: 10-16-17 Began making angle pieces, but decided to put this on and glue wood underneath pipe & temporarily tape it to hold it in place.



Day 6: 10-17-17 Experimented with gear ratios of VEX motors, decided instead to go with small



**Day 7:
10-18-**
and began using
size, but proved

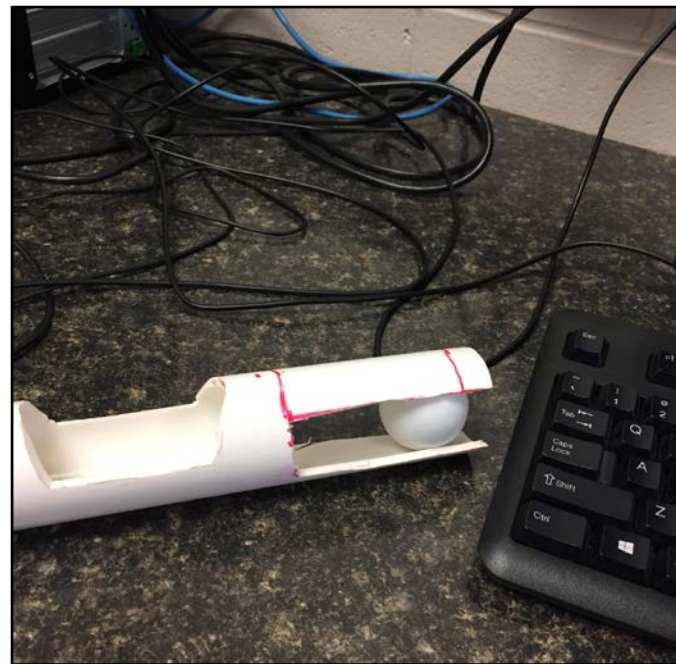


too difficult to complete. (Launcher was originally supposed to be complete today)



Day 9: 10-23-17 Power sander used to cut holes through side of pipe.

Day 8: 10-20-17 Used power sander to finish hole in top of pipe, then marked and began using drill press to create holes in side of pipe. PVC pipe became detached from wood, so will need to be reglued.



Day 10: 10-24-17 (No image) No further construction was made today.



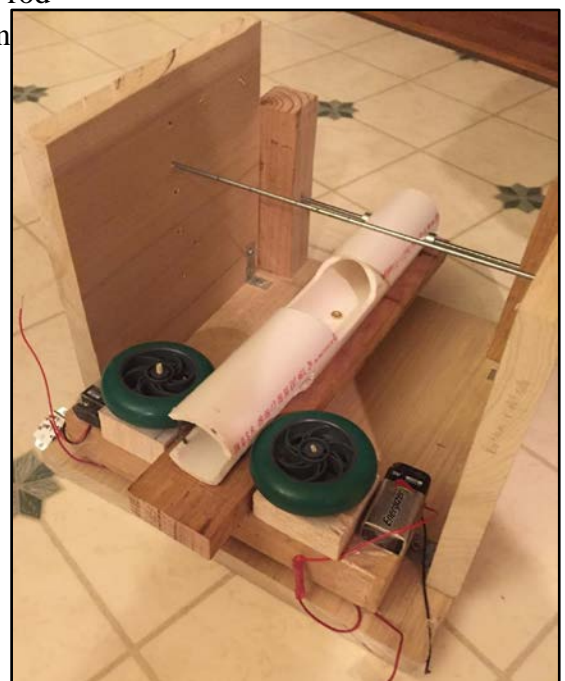
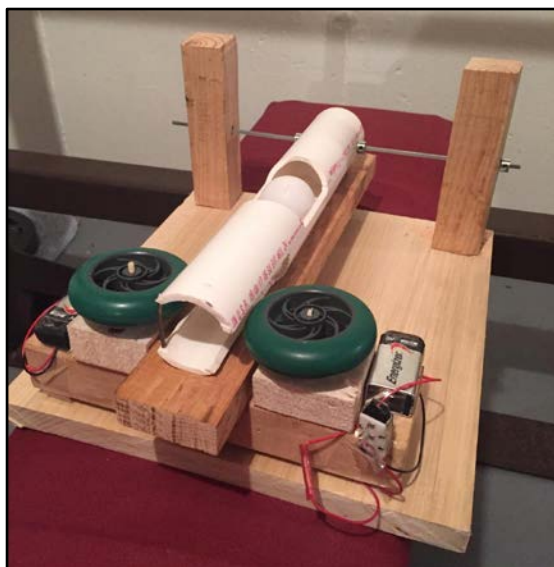
les in two small wooden blocks, which will be mounted to the wooden piece mounted underneath the PVC pipe.

Day 12: 10-26-17 Remounted wheels more snugly to motors, cleaned PVC pipe with isopropyl alcohol (not pictured here).



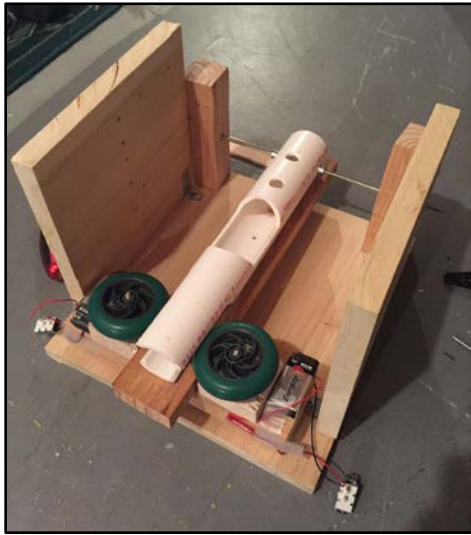
Day 13: 10-27-17 (No image) Hole marks were drawn in on wood.

Day 14: 10-30-17 Wooden pieces were first screwed into place, then the motors were wired to switches and batteries. The PVC pipe was screwed in place, and a metal rod was used to prop the pipe open. Later, the angle pieces were cut down by 2 inches on each side, and were screwed into place using hinges. Angle holes were drilled on each side, and a second metal rod was put in place. Only a few things need to be tweaked until construction is officially complete.



Day 15: 10-31-17 (No image) No further construction was made today.

Day 16: 11-1-17 (No image) No further construction was made today

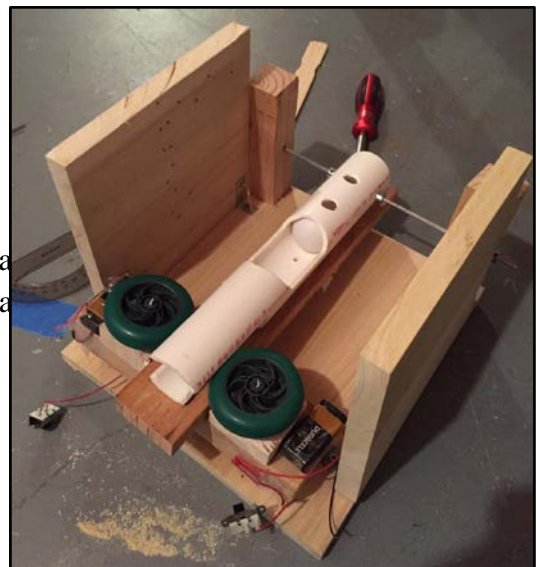


Day 17 11-2-17 Two new holes were drilled to better attach the pipe to the wood. The pipe was shifted from side to side to make the ball launch straight out of it.

made today

Day 18 11-3-17 (No image) No further construction was

Day 19 11-6-17 Angle holes were redrilled. Ball was launched at 0 degrees, and average launch distance was found.



Day 20 11-7-17 (No image) No further construction was made today

Day 21 11-8-17 One hinge attached to outside of each angle plate. Further steps were completed today. Last step was to attach the hinges. This step was complete. Testing was completed today.

