



096-ST

## Design of Mini Missile Launcher 40 mm

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*The research is aimed to design, test, and calibrate a mini missile 40 mm launcher (PIKE) to increase the lethality and power of fire for an infantry rifle man and weapon. The idea behind the work is directed to design and produce a standalone or augmented firing system which has the possibility to fire dependently or to be mounted on the automatic rifle. The weight of this launcher must not exceed a prescribed value in order not to affect the c.g. of the weapon which is attached to and affects its accuracy. The pressure inside the barrel must not exceed a certain value in order not to affect the rocket motor. To solve these problems, we studied the mini-missile requirement and we designed a movable launcher with a groove. It could be attached to a picatinny fixed on the automatic rifle or on the standalone receiver. So, it is required to design a picatinny rails to attach the missile launcher and the laser designator or sights. The barrel design is based upon ballistic results and its pressure variation.*