

**Digital Mounted Machinegun Optic
(DMMO)
Enhancing Crew Served Weapons (M2HB)
(Model:DMMO-1)**



Presented by: SG Chung, IT&T



Problems with Current Sights

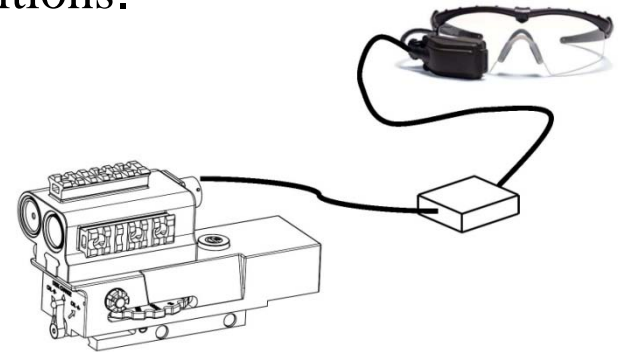
- IT&T sold thousands red dot sights to US and NATO forces
- Red dot sights require that shooters to position behind a sight, exposing their bodies to potential enemy fires during target acquisition and engagement.
- Users need one sight for the M2HB, M240, Minigun and M249. There is NO one universal machinegun sight.



- More accuracy
 - Not sufficient range selections from 200m-2000m.
 - Range selection in 100m increments (More choices)
- Users need a quickly deployable a 3x or 5x magnification device for better target identification

Solution- The Digital Mounted Machinegun Optic (Model: DMMO-1)

- The DMMO with *the dual bullet drop compensation* wheel ensures that every round is on target (pin-point accuracy) to ultimately suppress enemies faster, reduce collateral damages, and conserve ammunitions.



- The DMMO offers shooters the accuracy of sight plus additional protection and safety by minimizing body exposure during engagement with enemies.
- It is developed to minimize casualties! Users of the DMMO are not required to position their bodies behind the sight.
- **Using a HMD** mounted on a helmet, shooters can quickly acquire targets, and deliver a firepower with a **pinpoint accuracy** enhancing shooters confidence in the field.

Applications with Various Platforms

- This high performance Digital Sight has demanding applications for the armed forces.

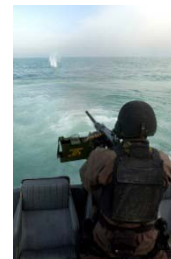
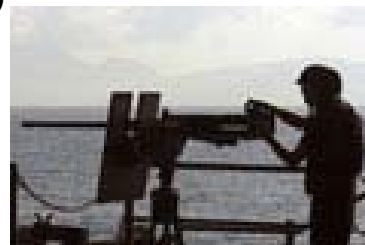
- Armored Vehicles



- Helicopters



- Sea(Patrol Boats)



Main Components

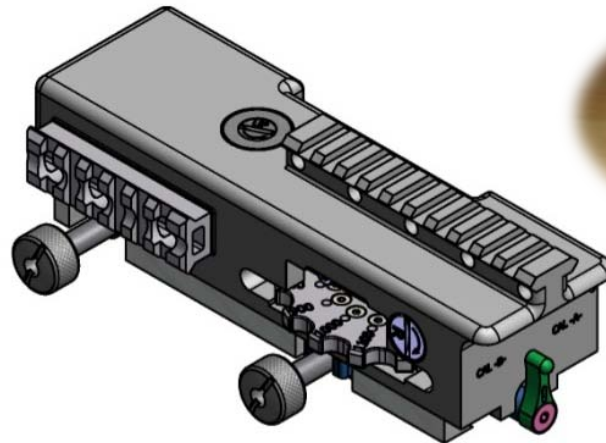
- The DMMO-1 consists of the following modules

- Dual Bullet Compensation Mount

- Dual Bullet Compensation Wheel (7.62 and 12.7mm)
- Caliber selector
- Rails

- Digital Module

- Rugged camera
- Laser illuminator
- IR Sensor



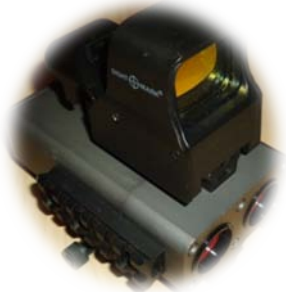
- Control box and HMD

- Battery
- HMD and Cables
- Switches



Digital Module

- The DMMO comes with a rugged camera with up to 3x digital zoom capability
- With a built-in laser illuminator, it allows gunners to operate during day and night. The laser illuminator can be activated for low-light target identification and precise shot placement. *The laser illuminator will bring the light of day upon dark and uncertain situations!!*
- The IR detector installed with the DMMO detects a laser beam (wavelength from 500nm to 900nm). The IR detector will provide an early warning to DMMO users for possible enemy fires.
- Using a control box, the shooter can focus up to 3x for better identification of an area of interest.
- **Again, the DMMO allows the shooter to stay under or behind a crew served infantry weapon during battlefield conditions.**

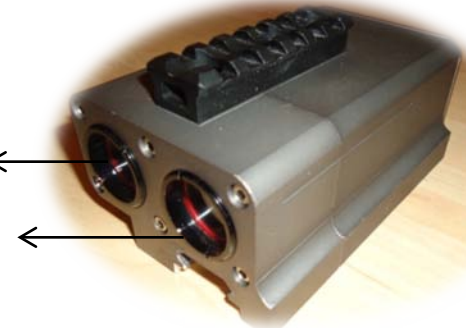


Connector →

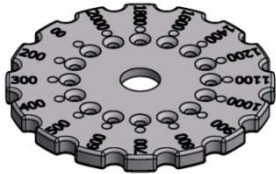


Laser illuminator ←

← Camera

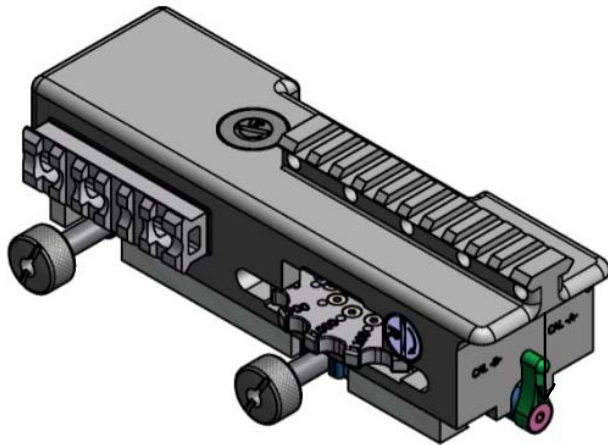


Dual Bullet Compensation Mount (Universal Machinegun Mount)



Dual bullet drop
compensation wheel
(7.62/ .50cal)

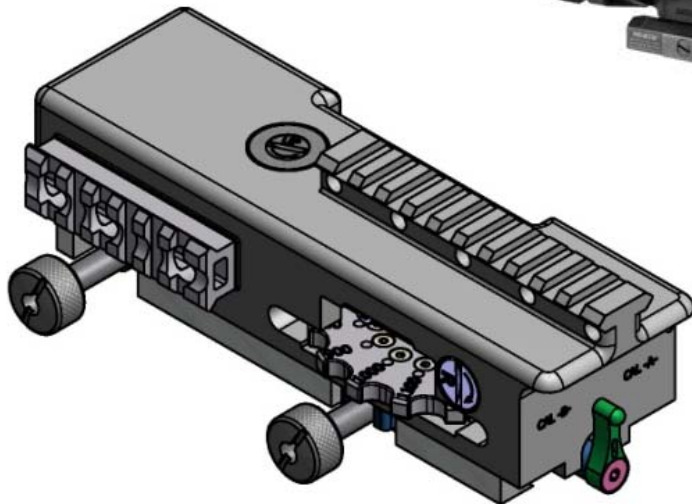
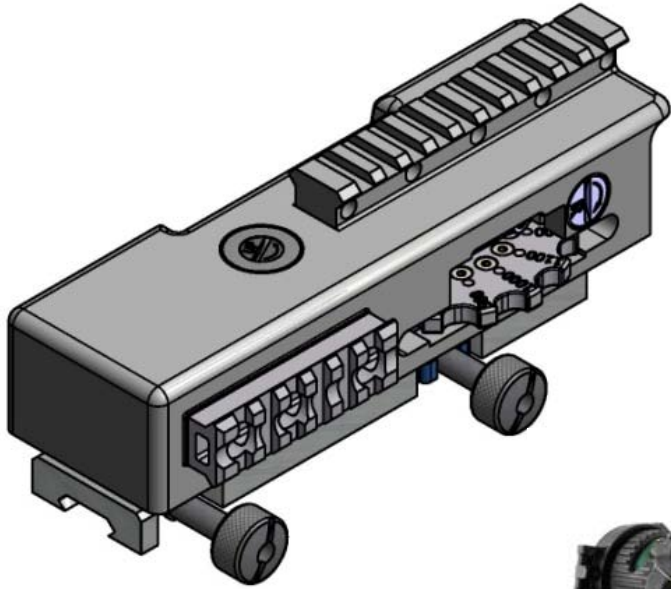
- A Dual Bullet Drop Compensation Wheel corresponds to one set of two calibers and is exchangeable with another dual bullet drop compensation wheel corresponding to a different set of two calibers.
- The DMMO includes additional bullet drop compensation wheels to accommodate other dual caliber combinations, such as 5.56mm/7.62mm, .50 cal/20mm, and others.
- **The Dual Bullet Drop compensation wheel (7.62/ .50 cal)**
 - Easily installed into the DMMO without using any tools
 - User can select desired caliber setting (e.g., 7.62mm or .50 cal) by flipping the caliber adjustment knob from one side to another.
 - Dual bullet drop compensation wheel may be used to compensate in 100m increments 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500 in the case of 7.62mm caliber arms (with an effective range=800m, Max =1200m).
 - In the case of .50 caliber, may be used for 200,300, 400, 500,600, 700 800, 900, 1000, 1100, 1200, 1300, 1400, 1600, 1800, 2000 (in meters).
 - Total =16 settings



Caliber adjustment knob

Why Use the Universal Machinegun Mount?

Model number: UMM-1

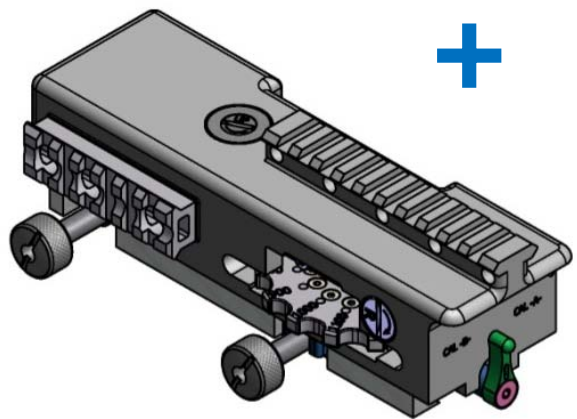


It is designed to work with any sights!!

Digital Mounted Machinegun Optic (DMMO)

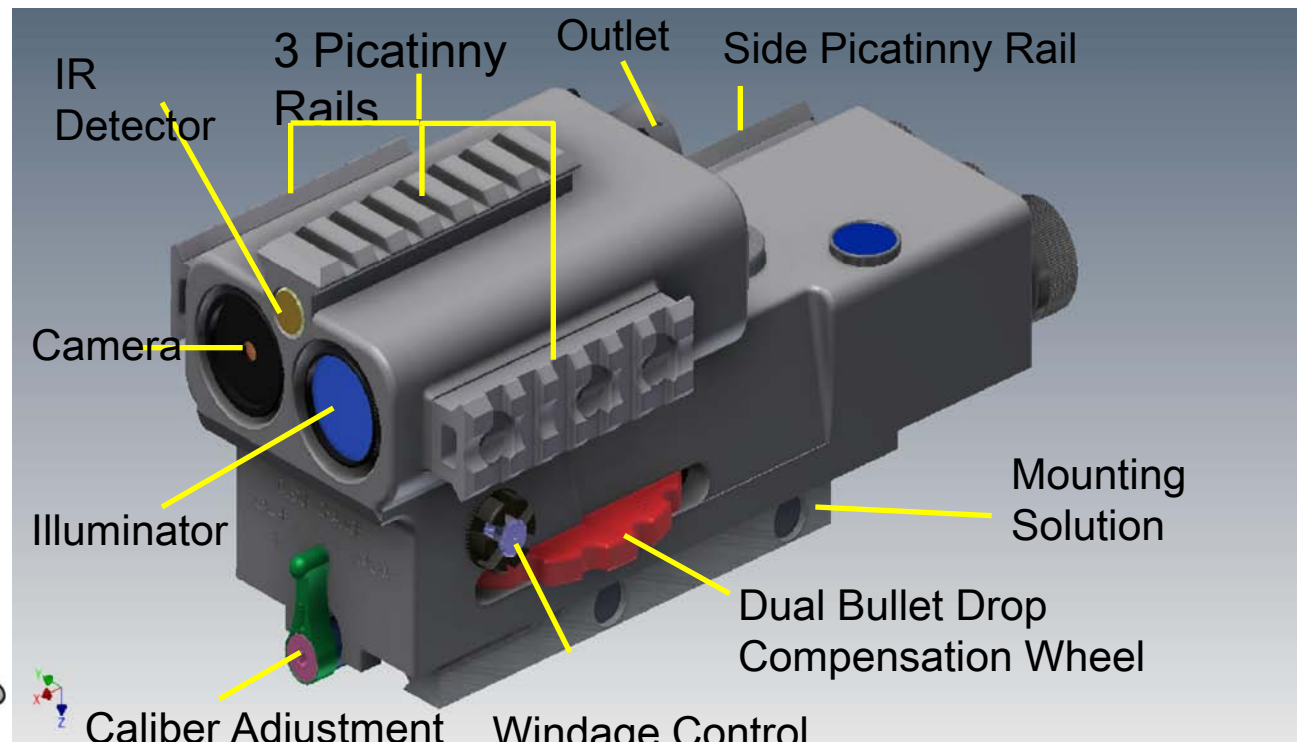


Digital Module



Universal Machinegun Mount

+

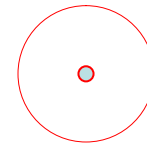
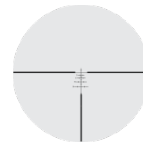
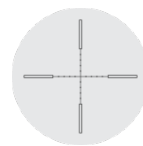


=

Digital Mounted Machinegun Optic

Control Box and HMD

- **DMMO's Control Box is connected to the Digital Module and a head mounted display (HMD) to displays real-time video on the user's eye-piece.**
- **The Control Box provides a power required to operate the Digital Module and a HMD**
- **DMMO comes with 3 reticles and can be selected using the Control Box**
 - Ground Force application
 - Maritime application
 - Helicopter application
- **Using the Control Box, users can select 1-3x magnification**
- **A built in Laser Illuminator can be activated with the Control Box**



Integrated Digital Mounted Machinegun Optic



HUD



Control Box
Module

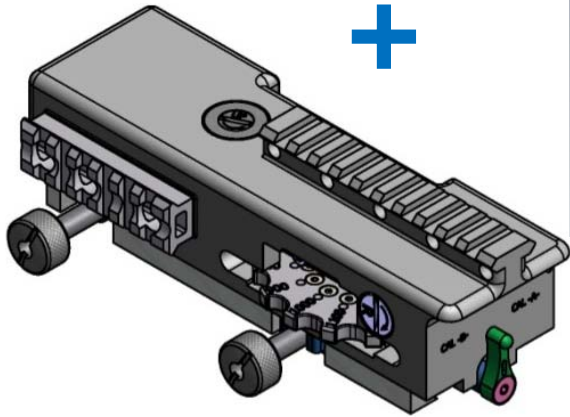


Digital Mounted
Machinegun Optic

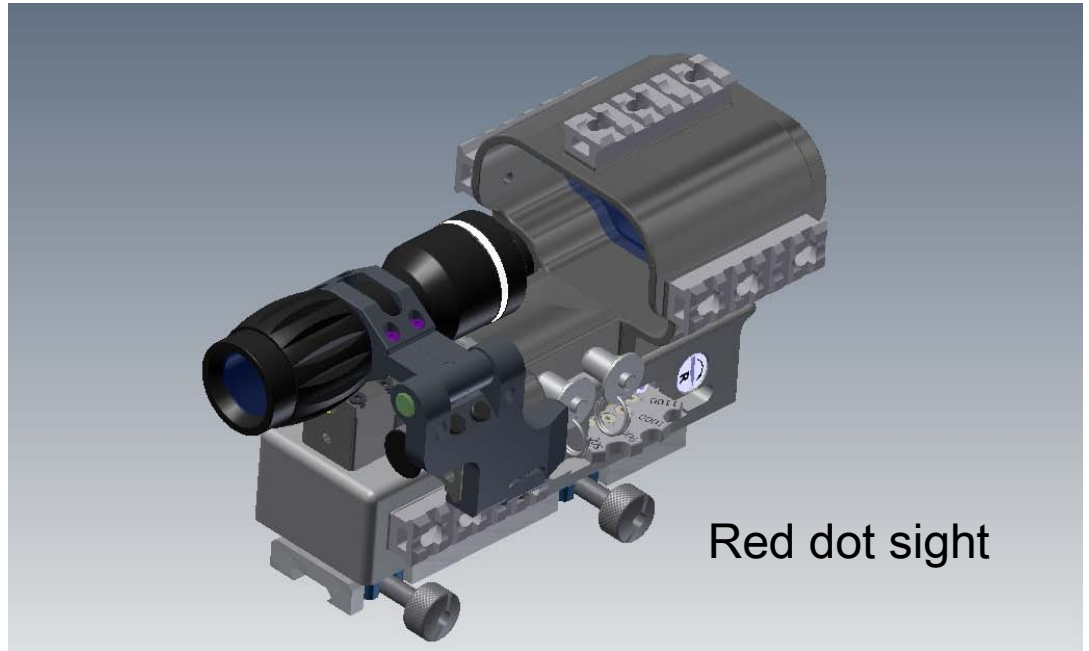
Option: Optical Module-Red Dot Sight



Optical Module



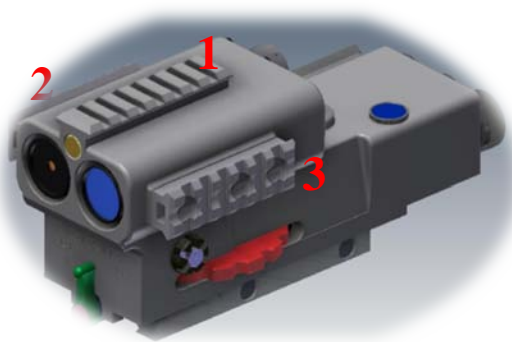
Universal Machinegun Mount



Red dot sight

This high performance digital sight will take your shooting ability to the next level offering superior protection.

Option: 3 Mil-Std-1913 Rail System



- **The unit comes with 3 additional rails to install:**

- Infrared Zoom Laser Illuminator/Designator
- Flash lights
- LRF
- Dazer lasers



Why upgrade with the DMMO?

• Benefits for Humvee or Tank Gunners

- Gunners operating light, medium and heavy caliber weapons installed on ground combat vehicles have a very limited protection against enemy fire power.
- Typically the gunner exposes his upper-body in order to position behind a crew served weapon. Retrofitting the weapon with the DMMO allows a gunner to remain in the relative protection of the vehicle.
- Like a remote weapon station, the DMMO provides gunners the ability to acquire and engage targets while staying under an armored shield or protected armor.
- DMMO provides Gunners increased protection!!



Why upgrade with the DMMO?

• Benefits for Helicopter Gunners

- Door Gunner position requires manning a machine gun in the open door of a helicopter.
- Equipping machine guns such as .50 cals, the M240 series and Miniguns with the DMMO eliminates the need to lean outward of the helicopter to get a better firing angle.
- Door gunners can remain inside the helicopter and still effectively target and engage enemy using our DMMO.
- Door gunners will always get the best firing angle sitting comfortable and safely inside the helicopter.
- In addition, the DMMO will also allow gunners to engage targets in the front and the rear of their helicopter.



Why upgrade with the DMMO?

- **Benefits for ground troops**

- Crew served weapon operators like to build obstacles such as walls, sandbags, or other objects that provide protection from enemy fire power but require them to expose themselves to enemy fires when operating machineguns.
- By installing the DDMO to a crew served weapon, soldiers can stay behind sandbags or bunkers and still engage targets effectively.
- *The DMMO will save lives!!!*



The DMMO-1	Laser Specifications
Wavelength	808nm
Stabilized optical power	140mW
Operating voltage/Current	DC 12V/280mA (Max)
Laser class	3R
Optical power (mW)	140 (Tc=25)
LD power (mW)	200 (Max)
Output efficiency	86
Beam Diameter (100m)	0.5-10
Camera (NTSC) Specifications	
Image Sensor	SONY 1/3" SUPER HAD II High Sensitive Color CCD
Total Pixels	811(H)×508(V)
Effective Pixels	768(H)×494(V), 380K Pixels
Resolution	560TV Lines
Minimum Illumination	0.15LUX 40IRE(F1.2)
S/N Ratio	50dB (AGC Off)
Current Consumption	130mA Max.
Scanning Frequency	NTSC : 15.734 KHz (H) and NTSC : 59.94 KHz (V)

Technical Specifications (Model DMMO-1)

Mechanical Data

Housing Material	High Strength Aluminum
Surface Finish	Anodized, Matte, Carbon Black
Dual Caliber	7.62mm and 12.7mm
Mounting	3 MIL-STD-1913 Rail System
Trajectory Ranges	16 settings -200, 300, 400,500, 600,700, 800, 900. 1000, 1100, 1200,1300, 1400, 1600, 1800 & 2000m

Dimensions

Length/Width/Height	130mm / 70mm / 50mm
Weight	2Kg

Environmental Data

Operating Temperature	-10°C ~ +50°C / 60%
Storage Temperature	-20°C ~ +60°C / 80%

For more information



IT&T

6817 Felix St., McLean, VA 22101

Tel: 703-929-0595 * sg@inter2t.com