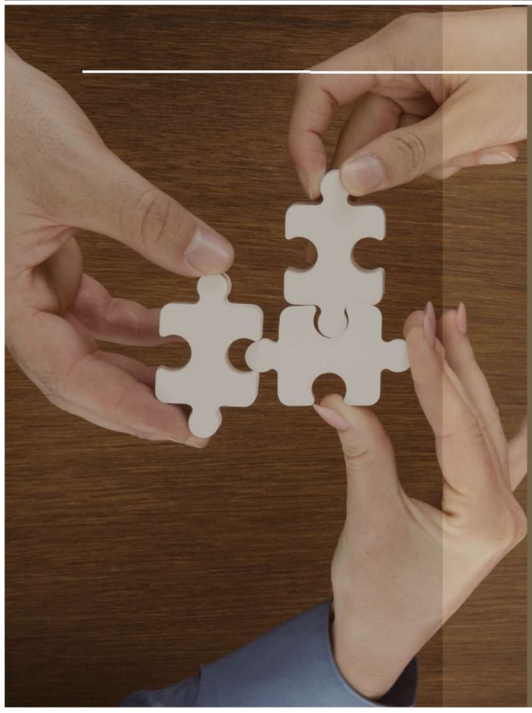
ROLL OFF HELMET TESTING DEVICE

SAFETY FIRST!



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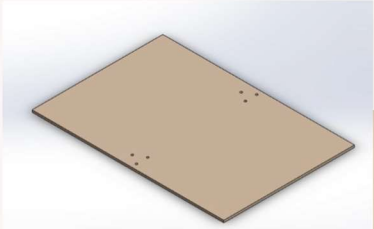
What is roll off helmet testing device?

A DEVICE TO TEST THE POSITION STABILITY, AND THE SAFETY OF HELMETS

specifically helmet's capacity to shield the wearer's head from harm incurred after a rolling or sliding impact, are tested using a roll-off helmet testing device.

THE DEVICE IS CONSIST OF

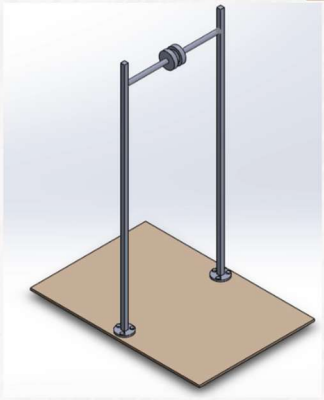


A WOODEN BASE

FFOR THE STABILITY OF THE DEVICE A PLYWOOD MADE BASE HAS BEEN USED.
LENGTH: 44 INCH
WIDTH: 25.5 INCH
THICKNESS:0.5 INCH

STAND BAR
ROUND BAR
PULLEY

TWO SQUARE SHAPED STAND BAR GIVES THE MAIN SUPPORT AND MAKES THE MOST IMPORTANT PART OF THE DEVICE . ROUND BAR HOLDS THE PULLEY.
PULLEY PLAYS ONE OF THE MOST IMPORTANT PART BY ALLOWING THE ROPE TO SLIDE AND IN ANGLE MEASUREMENT



Here the main device set up has been shown

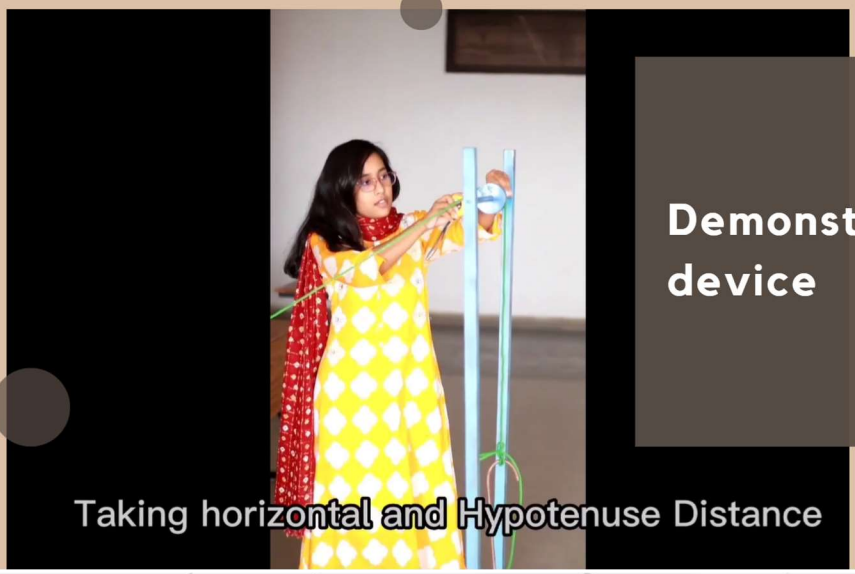
ADDITIONAL INSTRUMENTS

1.MANNEQUIN HEAD

1.HELMET

1.WEIGHT PLATES

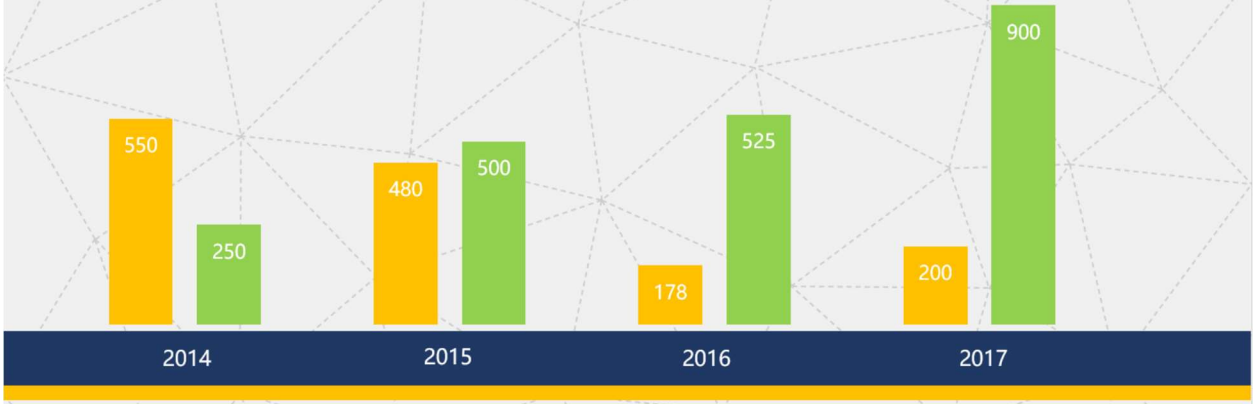
MOST IMPORTANTLY THE TOTAL COST OF THIS DEVICE IS ONLY 8000!



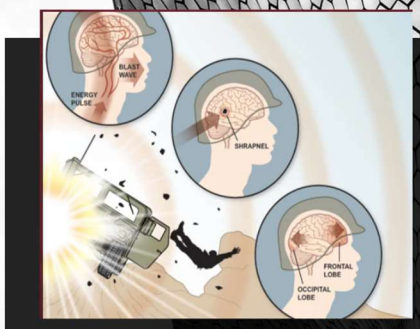
Demonstration of the device

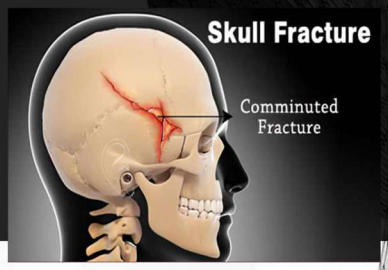
Road Traffic Accident Scenario in Bangladesh

According to: https://www.scirp.org/journal/paperinformation.aspx?paperid=90929



Number of Deaths Vs Year Graph





HEAD INJURIES FROM ACCIDENTS

- Traumatic brain injury
- Skull fracture
- Hematoma
- Maxillofacial trauma

Why Are We Choosing The Setup?

EFFECTIVE & USER FRIENDLY

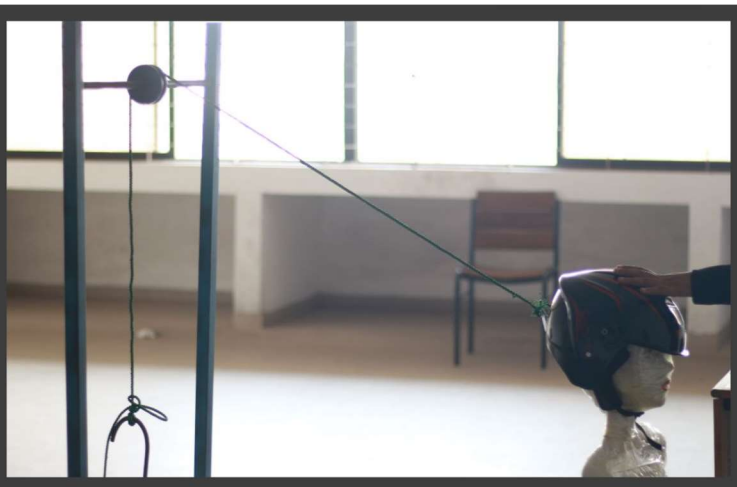
The setup is quite effective for area based results. It can detect which area of the brain is being injured and how much the injury has happend.

UNIQUE & PORTABLE

The setup is moveable and does not require much manpower to carry out. The design is quite unique.

BUDGET-FRIENDLY

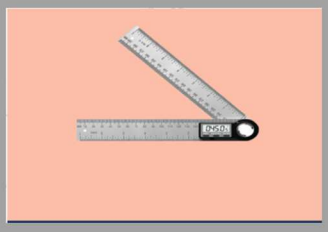
Seeing our socio-economic condition the setup is very much cost effective and works really fine with the accurate results.



•To assess the effectiveness of a helmet in staying in place on a rider's head during an accident
•To ensure that the helmets provide adequate protection during an accident.
•Helmets that pass this test are considered to have a reliable retention system and are likely to come off in an accident, reducing the risk of head injury.

Purpose of Roll Off Helmet Testing Device

Future Modification of The Project



Digital Protractor

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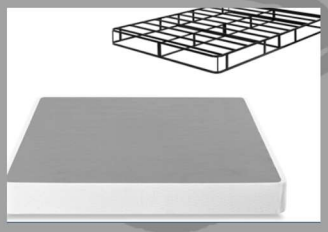
We will attach a digital protractor in the pulley head which will help us to measure the angle more easily



Thick Metal Base

We would have implemented a thick metal base and screw down the whole system to the base.

Tripod Head Stand

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We will use the suction cup based tripod mannequin head stand instead of tristand which we had to setted down by force

Q&A

Thank

YOU