

# MIIEx2017

Melaka  
International  
Intellectual  
Exposition

## PROGRAMME ABSTRACT

AUTISM

INNOVATION

DESIGN

INVENTION

**"Bridging Gaps with Creativity for Future Sustainability"**

# MIIEX2017



“Bridging the Gaps with Creativity for Future Sustainability”

## **EDITORS AND COMPILERS:**

Prof. Madya Dr. Shafinar Binti Ismail  
Mohd Halim Bin Mahphoth  
Aemillyawaty Binti Abas  
Fazlina Mohd Radzi  
Aidah Alias  
Ilinadia Jamil  
Nor Yus Shahirah Hassan  
Shafirah Shaari  
Farihan Azahari

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Division of Research and Industry Linkages  
Universiti Teknologi MARA MELAKA  
KM26 Jalan Lendu,  
78000 Alor Gajah Melaka  
Tel +606-5582094/ +606-5582190 / +606-5582113  
Web: [www.miiex2017.com](http://www.miiex2017.com)

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## LOW-COST PROJECTILE LAUNCHER EXPERIMENTAL KIT

Puteri Noor Safura Binti Megat Mahmud, Mas Fiza Bt Mustafa, Dr.Siti Rudzhiah Bt Che Balian & Noor 'Aisyah Bt Johari

UiTM CAWANGAN SELANGOR.KAMPUS DENGKIL

### Abstract

Projectile motion is an example of motion with constant acceleration when air resistance is ignored. An object becomes a projectile at the very instant when it is released and is influenced only by gravity. The x- and y- components of a projectile's motion are independent, connected only by time of flight,  $t$ . Projectile motion is one of the crucial topics to be taught to students in Foundation Physics course. The students often find it difficult to understand the concept of projectile motion due to theoretical learning. In regards to 21st century learning model, preferably students like to hands-on practice to gain experience so that they can understand better. To unravel this matter, the experimental kit is introduced to help increase enthusiasm and comprehensibility of scientific-technical topics A-low-cost projectile launcher experimental kit as a teaching aid was designed in helping the students to visualize and demonstrate the concept of projectile motion. The purpose of this experimental kit is to show the students the trajectory and horizontal distance of a certain object being thrown by a projectile launcher by varying the angles of projection and the initial velocities. This kit is built from a PVC tube, its base is from wood and spring as the launcher. Such simplicity in building this kit and importantly low-cost can be facilitated to any other education institution to build or develop their own kit. This modest design can be used indoors as well as outdoors.

## SMART SATAY BURNER

Muhammad Faizan bin Mahadi, Anisafina binti Maidin, Siti Najah Raihan binti Sakrani & Shafezah binti Abd Wahab

UNIVERSITI TEKNOLOGI MARA

### Abstract

Smart Satay Burner is an innovation product of satay burner. Smart Satay Burner comes with two new features from the current version. The first innovation that we come out with is the charcoal compartment. We create a new burner compartment to ease the burning process either to store or add charcoal without remove the satay. We come out with this idea because we identify that most of the satay operators face difficulties in adding the charcoal throughout the process. The current practice they have to remove the satay and also the burning nets whenever they wanted to add the charcoal. This process will cause delay. Hence, we come out with the new idea by adding the new compartment to add the charcoal without removing or put aside the satay and the burning nets. We also has improve the features of old burner by make the burner can be move for 360 degree so the new version of smart satay burner will be easy to use and will turn to smart user. This idea come out when we identify that most of the satay operator facing problem where they can only stay at side of the satay burner.