

STEM Outreach Project: Techno Inventors MoonBots Fair

Last Friday on 5th August 2011, we, Techno Inventors team which consists of five members: Timothy Lo, Yoke Hou, Qin Rou, Kenneth Ong and Sean Seow, organised a STEM Outreach Project called MoonBots Fair. It was held in our school hall, Hall of Character, Cahaya Campus, Shah Alam, Malaysia. We were assisted by our teachers Mr. Paul Ong and Mr. Evan Kew. Our targeted audience were students aged between 10 and 13. The event started at around 10.00 a.m. and it ended at about 11.50 a.m.

The objectives of the MoonBots Fair by Techno Inventors were to create awareness about MoonBots and to understand about exploration of the Moon. Firstly, we introduced ourselves and our roles in the team. Then we introduced our team's website, www.technoinventors.yolasite.com to the students.

The students in the school are always excited about LEGO building and therefore we organised a LEGO Spaceship & Robot Design Competition for them. We have been learning how to construct and contemplate LEGO models by using LEGO Education STEM sets during our LEGO lesson in the school. The students showed great enthusiasm towards this competition and it was carried out while the rest of the programme on that day went on. We had 9 teams took part in the competition and there were 2 contestants in each team. The competition went on until the end of the MoonBots Fair. We showed them our Phase One video essay (*Who is our space explorer and why?*) right after the competition began.

We did our first sketch entitled "Lunar X vs. MoonBots" to introduce the Google Lunar X PRIZE and MoonBots. It was presented by Timothy Lo and Sean Seow. (*Please refer to the pdf file name: "1st sketch – Lunar X vx MoonBots" for the full description*)

Then, we had a short quiz about the Moon and space explorers. We manage to find related questions from **NASA Lunar Science Institute** website (www.lunarscience.nasa.gov/kids). The quiz had 20 questions in total and there were two sections. The quiz has two sections which are Section A for the senior students and Section B for the junior students. First 10 questions of Section A in the quiz are about the Moon. Another 10 questions of Section B is about the space race between the Soviet Union and the United States of America. The contestants were very eager and excited to join the quiz. The quiz was about 30

minutes and there were 8 teams of 2 contestants to participate. The winners for the quiz received a MoonBots sticker each. The winners will also get a certificate of appreciation. *(Please refer to the pdf file name: “Quiz on Space by Kenneth Ong” for the full description)*

We had second sketch entitled “The Cold War” and it was presented by Qin Rou, Kenneth Ong and Yoke Hou. The purpose of the sketch was to understand the space race between Soviet Union and the United States in the past. *(Please refer to the pdf file name: “2nd sketch – Cold War” for the full description)*

Sean Seow and Yoke Hou distributed team leaflets of the event to the students and teachers on that day. *(Please refer to the pdf file name: “MoonBots Fair Leaflet” for the full description)*

Next we explained on our team biography. We explained what got us together as a team and our experiences in both FLL and MoonBots this year. After that we showed our progress video and it can found at http://www.youtube.com/watch?v=WUYbmQiJe6Y&feature=player_embedded Everybody loved it and applauded.

The judges of the LEGO Spaceship & Robot Design Competition were two senior teachers and two junior teachers in the school. They had difficult time to choose the best design teams from the competition because most of the designs were really good and outstanding. The judges were intrigued at the many designs of robots that were displayed but there could only be three winners. The judges did not judge what it can do but how it looks like and it must be logical.

Finally, the top three winners of both LEGO design competition and quiz were announced during our prize giving ceremony. We gave away the MoonBots stickers to the winning teams and the judges on that day. The MoonBots Fair went smoothly and successfully as it was planned before.