ONSPOT 3D PRINTING FOOD

Theme:

Open Innovation >> Old Trafford Museum Tour Experience

TEAM NAME: SHAPEABLES

IDEA:

IN A MUSEUM ,WHEN YOU DON’T HAVE SOMETHING TO EAT YOU GET A LITTL ANOYED , SO TO HELP THIS EXPERIENCE OF A MUSEUM TO BECOME A ONCE IN A LIFETIME OPPORTUNITY WE THE MEMBERS OF THE TEAM NAMED SHAPEABLES HAVE COME UP WITH AN IDEA TO ROCK THINGS UP A LITTLE BIT.HOW ARE WE GOING TO DO THAT? ITS SIMPLE EVER CONSIDERED TO GET YOU FAMOUS PLAYERS TO BE PRINTED ON A CAKE OR THEIR SCULPTURE BE MADE AUTOMATICALLY BY A MACHINE IN FRONT OF YOU ,THAT’S THE MAIN IDEA WE ARE WORKING ON , WE ARE MAKING A MACHINE WHICH WILL SURELY MAKE YOUR MUSEUM TOUR EXPERIENCE NOT JUST EXCITING BUT AMAZING . THE MACHINE WILL BE MAKING FOOD SCULPTURES AND ALSO DIFFERENT DESIGNS RIGHT IN FRONT OF YOUR VERY OWN EYES. THE STATUES OR TROPHIES ANYTHING YOU WANT CAN BE 3D PRINTED BY OUR MACHINE AS FOOD FOR EATING RIGHT IN FRONT OF YOU WITHIN MINUTES .THE BEST PART IS THE MOTION OF THE MACHINE IT WILL SERIOUSLY BLOW AWAY EVERYONES MIND ,WHEN IT WILL GIVE OUT MOLTEN CHOCOLATE ON A CAKE AND ALSO OTHER DIFFERENT FLAVOURS TO LIGHTEN UP YOUR TASTE BUDS.THE 3D PRINTING FOOD IDEA IS AN AMAZING ONE AS IT WILL NOT JUST PRINT FOOD ,BUT WILL PRINT AN IDEA OF INSPIRATION IN MANY PEOPLES MIND WHILE COMBINING SPORTS WITH TECHNOLOGY AT ONE PLACE .YOU GET BORED BY JUST WATCHING OLD STATUES OR TROPHIES , SO JUST STOP RIGHT HERE AND THINK FOR A SECOND THAT A MACHINE IS IN FRONT OF YOU AND IT IS PRINTING YOUR FAMOUS PLAYER AS A FOOD ITEM .WOULDNT IT BE COOL.

THIS IS WHAT SHAPEABLES IS WORKING ON WE HAVE COMPLETED ALMOST 85 % OF THE WORK AND NOW ARE IN OUR FINAL PHASE OF COMPLETION WE WILL BE LAUNCHING OUR WEBSITE SOON IN SEPTEMBER (YOU CAN CHECK OUR DOMAIN REGISTRAR ([WWW.GODADDY.COM](http://WWW.GODADDY.COM)) FOR CONFIRMATION THAT OUR WEBSITE EXISTS AND MR ZAIN IS BASICALLY THE OWNER OF THE WEBSITE ALSO THE TEAM LEADER OF SHAPEABLES.

WORKING METHODOLOGY:

TO ENHANCE OLD TRAFFORD MUSEUM TOUR EXPERIENCE , WE ARE BRINGING THIS TECHNOLOGY MERGED WITH FOOD SCIENCES TO THIS BRILLIANT COMPETITION.THE DESIGN IS READY AND WE HAVE TESTED ALL THE AXIS FOR THE MOVEMENT OF THIS MACHINE AND WE ARE TRYING OT MAKE THE MACHINE MORE PROTABLE BY USING ARDUINO AS A CONTROLLER ,LIKE NORMAL 3D PRINTER FOR PLASTIC PRINTING DOES , BUT FOOD TECHNOLOGY IS COMPLICATED IT INVOLVES RHEOLOGY OF FOOD ,S O WE CANNOT JUST USE THE SAME CODING OF NORMAL PRINTERS WITHOUT ALTERATIONS.SO TO TEST TRY WE USED A CNC CONTROLLER SOFTWARE MACH 3 TO HELP GET US AN IDEA OF THE PRINTING AND MACHINE TESTING AND BY FAR IT WENT WELL AND AFTER THAT WE TRIED A NEW CODE FOR AXIS TESTING WITH ARDUINO AND IT WAS SUCCESFULL .THEIR IS A VIDEO ATTACHED FOR THAT TESTING. THE FINAL THING LEFT IS THE EXTRUDION PART WHICH WILL GIVE OUT THE FOOD MATERIAL BY AIR PRESSURE COMBINATION.

STRUCTURE OF THE EXTRUDER:

THE EXTRUDER WILL GET FILLED WITH FOOD FROM ONE POINT AT THE TOP , AND THEN THAT POINT WILL BE CONNECTED WITH AN AIR PUMP WHICH WHEN CONTROLLED WITH A TIMED RELAY WILL BELOW AIR INTO THE CYLINDRICAL EXTRUDER THUS PUMPING OUT THE FOOD MATERIAL FROM THE BELOW END (SEE THE PICTURES FOR MORE UNDERSTANDING)

EXTRUDER DESIGN:

THE EXTRUDER IS MADE FROM 3 LAYERS OF METAL THAT IS STEEL THAN COPPER THAN STEEL.THE FIRST LAYER IS OF STAINLESS STEEL WHICH WILL HAVE THE FOOD IN IT, THEN A CIRCULAR CUT OF A PIECE OF COPPER IS WELDED OUTSIDE OF THE STELL COVERING THE BOTTOM PART TILL THE 2/3RD OF THE CYLINDER .AFTER THAT ANOTHER STEEL LAYER COVERS THE COPPER COMPLETELY FROM TOP TO BOTTOM THUS MAKING AN OUTSIDE LAYER OF STEEL .WHICH WILL HAVE THE HEATER ATTACHED TO IT. NOW THIS HEATER WILL HEAT THE COPPER METAL DIRECTLY WHICH WILL THUS HEAT THE STEEL INSIDE CAUSING THE FOOD TO HEAT EASILY. (ALL THE PICTURES ARE ATTACHED)

THE MACHINE WILL PRINT FOOD IN ALL SHAPES AND SIZES, SO IT’S A 3D PRINTER FOR FOOD.

CHECK OUT THE PRESENTATION FOR MORE INFORMATION AND SUPPORT OUR IDEA