

# ICE CREAM



Planning Domain  
Definition Language  
(PDDL) Project

# *Team Members:*



*Md. Rafid Islam*

170042009



*Ratun Rahman*

170042011



*Akib Ahmed*

170042013



# *Project Description*

**We have created a PDDL problem and domain file that demonstrates an ice-cream company production system. In our problem we can create as many layers and variations as we want.**





# *Problem Statement*

In our problem file we have objects such as order (shop order), chocolate type (white chocolate), extra element (vanilla), cone type (thin cone), sprinkles. Initially we need an order and particular types of flavours. Then we will be asked to assemble it. Aim of our project is to complete the order, have all the flavours in the ice-cream, package it and then deliver.

# *Predicates*



**Delivered**



**Vanilla**



**Have-cone**



**Have-sprinkle**



**Cone**



**Have-order**



**Have-chocolate**



**Order**



**Packaging**



**Sprinkles**



**Have-vanilla**



**Chocolate**



**Assemble**



# Domain Statement

## Packaging

If ice-cream is assembled then it will be packaged but they won't be delivered yet.

## Delivery

If packaging is completed and not delivered yet we will deliver it.



## Order

If there is an order we will start the production.

# Add Flavours

## *Add-chocolate*

If the order requires chocolates and there is available chocolate it will be added.

## *Add-sprinkles*

If the order requires sprinkles and there is available sprinkles it will be added.



## *Add-vanilla*

If the order requires vanilla and there is available vanilla it will be added.

## *Add-cone*

If the order requires cone and there is available cone it will be added.

# FUTURE PROJECTS



- We will add production cost and optimize it.
- We will add ice-cream cart.
- We will add multiple variations of ice-creams (Cup ice-cream, ice-cream cake).
- We'll start the production process from the very basic level.



*THANKS*

