# FEH APP R02

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## Chassis/Drivetrain Concepts

1. Triangular Chassis with three omniwheels and three motors.
2. Two wheeled with two unpowered wheels and a rectangular chassis.
3. Tread design with two motors and rectangular chassis.
4. Four powered wheels and a rectangular chassis.

## Mechanism Concepts

### Ice Cream Levers

1. Rotating circle with a piece jutting off the side to push ice cream lever and flip burger.
2. A crane with a hook on the end using a pulley to lift the lever.
3. Planar moving omnidirectional robot arm.
4. Rotating hook arm.

### Burger Flipper

1. Rotating circle with a piece jutting off the side to push ice cream lever and flip burger.
2. Planar moving omnidirectional robot arm that lifts and lowers the flipper tray.
3. Crane with a hook on the end using a pulley to lift and lower the tray.
4. Metal sheet that rotates to flip the burger.

### Jukebox Button Pusher

1. Two arms for each button that extend based on the jukebox color.
2. Static stick/nub on robot that the robot rams into the correct button.
3. Extending stick to push button after manual alignment.
4. Robot just runs into the button.

**Sliding Order Ticket**

1. Extending static stick that the robot uses to move along the ticket and push it.
2. Static hook on the side of the robot to catch the ticket and slide it.
3. Uses two sticks that angle outward to push the ticket away from the edge of the ticket area.
4. Planar moving omnidirectional robot arm moves along the length of the ticket.

**Trash Deposition**

1. Rotating ramp to slide off trash.
2. Ramp with stop wall that lowers to let trash out.
3. Ramp with robot claws on tray that release to let trash out.
4. Spring board that launches the trash into the sink.

**Final Button**

1. Static stick/nub that the robot uses to ram the final button.
2. Robot just rams the final button.
3. Extending stick to push the final button.
4. Robot ejects a ball into the button.