## Grab - Wicke

- Camera (Done)
- Arm
  - Structurally needs 360 servos
  - Design (done)
  - Code (needs to be reintegrated)
- EM End effector
  - Research
  - Integration
  - Variable Speed Drill
  - Code \*

#### Go - Matt

- Wheel Servos and motors
  - Wicke is handling replacements
    - Moving (done)
    - Changing direction (Done)
    - Replacement not finished
- Research on optimal movement method
- Assembly with new motors
- Wheel Encoders
  - Code is done (\*)
  - Structure is built
  - Needs to be integrated
- H-Bridge
  - Code\* is done
  - Structure is complete

### **Localize**

- IMU
  - Code (done)
- IR Sensors/Servos (Max & Roman)
  - o 2 Built
  - o 2 needed
    - Parts (ordered)
    - Labor
  - Code nearly finished
  - Thinking about sonar

# **Chassis**

- Layout
- consruction

#### Power

- Regulators
  - Design & Construct?
  - Purchase premade?
- Research
  - How many systems need to be powered
- Boot order

## Code

- Lower Deck (Arduino)
  - Drivers (everyone)
  - Driver wrappers (Josh)
  - Messager between boards (in progress) (Josh)
  - Cross-arduino Sketch (in progress) (Josh)
- Upper Deck (Panda)
  - State (Josh)
  - Map Resources
  - scan (about 90% done) (Max)
    - IR modules
    - Triggering
  - Localization
    - Hypobot
    - Scan
    - IMU
  - Puck Recog
    - Localization
  - Pathfind
    - Algorythm
    - Nodes
    - IMU Parsing
    - Localize
    - Move
    - Puck Data
  - Grab the Puck

#### Move

- Use Ackermans or alternative motive function (Ackermans already done)?
- alternative method
  - Rotate in place (degree in = hbrdige out)
  - Linear Translation
- IMU Alert (Z)

#### Retrieve

- Electromagnetic End Effector Code
- Camera & arm code

#### Communication

- Code in progress severely fragmented
  - o Max is using his own model until Josh unifies the architechture.
- need some standardization to make this project more fluid (Josh)
- Panda to Arduino communication (Josh)
- IMU Communication (Mostly complete) (Matt)
- Sensor communication (Mostly complete) (Max)

## Mission Status

- Retrieve
- Path finder

### Return Home

Mission Status

## Human Interface

- on/off
- master power
- remote terminal(serial)
- noise/led alert

## Testing

## Startup sequence

- Who are you?
- Power