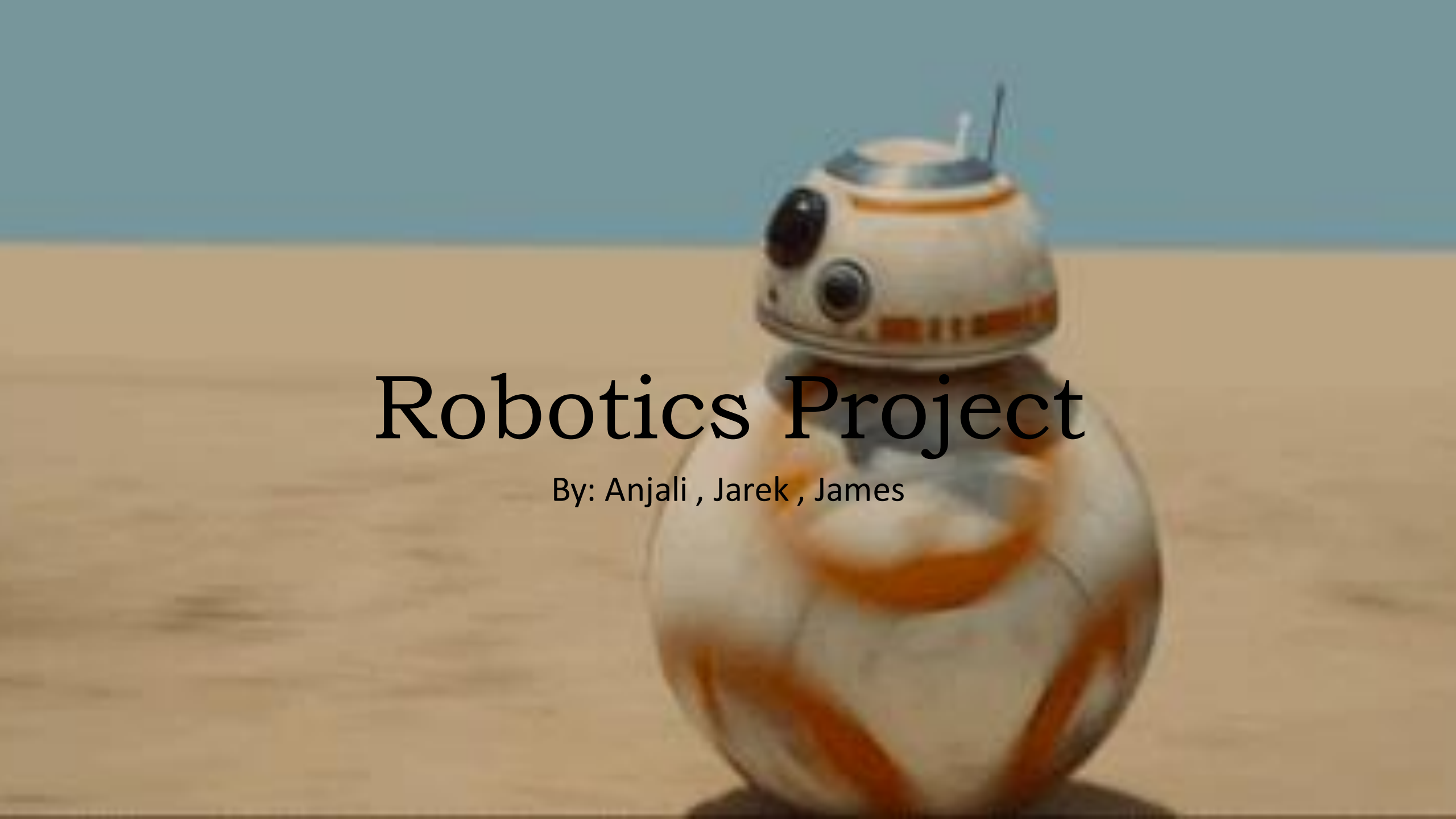

Robotics Project

By: Anjali , Jarek , James

Roles

Endurance

Anjali: Manager

- SDD, GitHub, robot video, robot testing

James: Planning

- algorithm, flowchart, robot testing

Jarek: Lead Programmer

- block code, Gantt chart, robot testing

Accuracy

Anjali: Lead Programmer

- SDD, block code, robot video, robot testing

James: Planning

- algorithm, flowchart, robot testing

Jarek: Manager

- GitHub, Gantt chart, robot testing

Agility

Anjali: Manager

- SDD, robot video, robot testing

James: Planning

- algorithm, flowchart, robot testing

Jarek: Lead Programmer

- block code, GitHub, Gantt chart, robot testing

Workflow

- Had one person do most of block code each time
- All participated in testing and suggesting edits in block code
- Helped each other with roles in general but had a main person responsible for each role

Challenges

- Time
  - Individual time constraints
  - HH208 not always open
    - sometimes crowded while open
- Accuracy
  - Getting robot correctly oriented before testing
    - Problems with this = more time spent redoing tests
  - Determining angles and movement duration
    - Getting robot to stay on / at least close to blue lines
    - (especially with Accuracy sprint)

What we learned about software engineering

- Takes lots of collaboration to get work done in time
  - Work done more quickly when all of us could meet up / communicate in real time
- Communication is important
  - Texting about meet up times, asking questions (each other and professor), sending each other material for GitHub and SDD
- Have to sometimes accept imperfect results
  - Could not always stay exactly on lines
  - Sometimes imperfect results still got the job done

What we would have done differently

- Could have made more time for testing
  - One or two members could have met up while not all available
    - (we started doing this more towards the end)
- Develop strategy for keeping track of orientation
  - Possibly could have used protractor to make sure robot's light matches up with certain degree while fixing orientation
  - Would reduce excessive testing due to orientation errors
- Write down test cases directly after tests
  - Usually wrote them after all the tests for that day, relying on memory
- Figure out app completely before using
  - Had various mishaps with both iPhone and Windows applications that occasionally made progress difficult

Agility Sprint Block Code

Agility Sprint Video