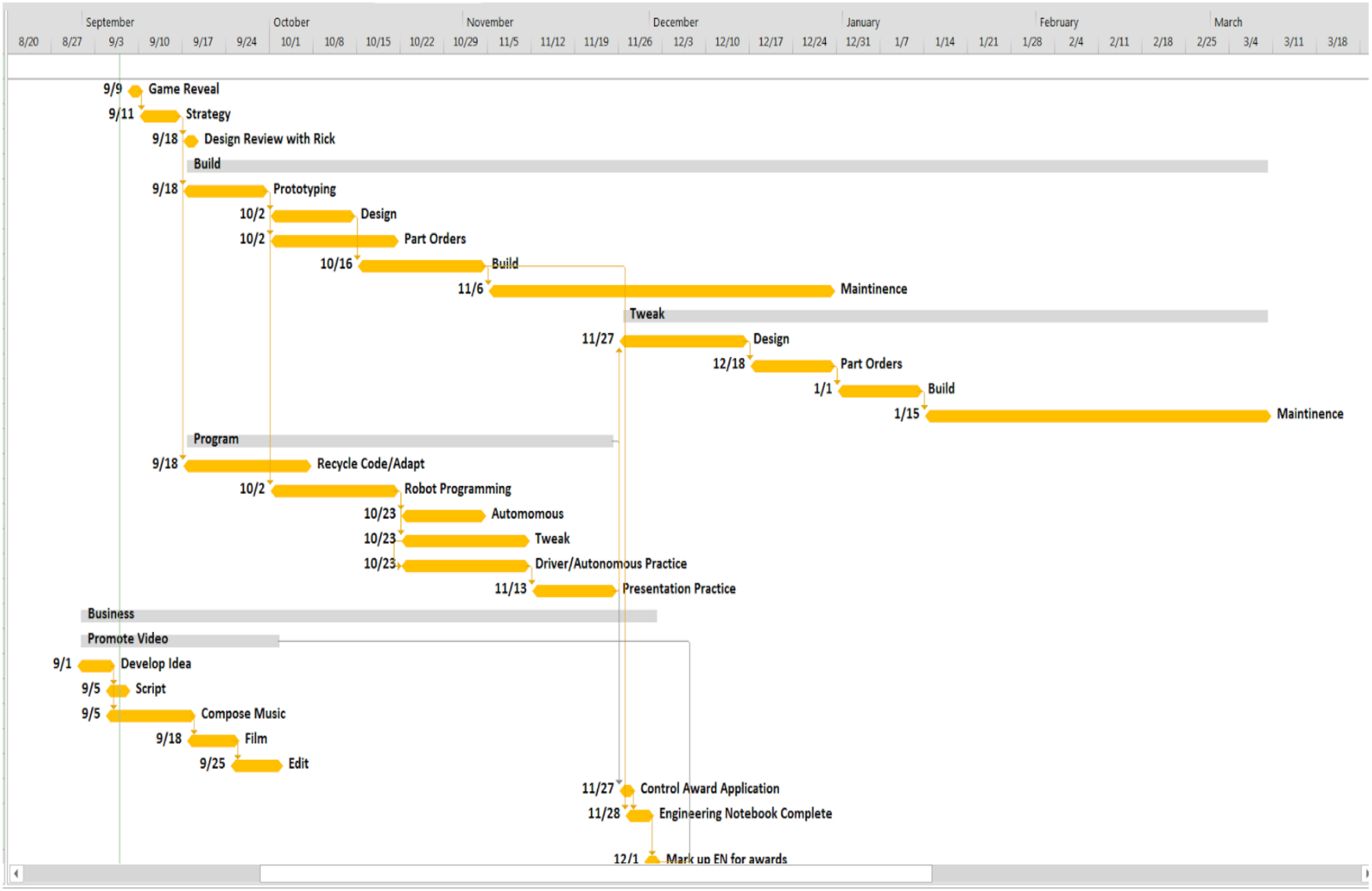
Season Planning

The Bionic Tigers - FTC 10464

What is season planning?

Time Management

- Know all your moving parts
- Decide priorities
- Create calendar
- Meeting agendas



Outreach

- Always plan ahead
- Put in work equivalent to benefit
- Decide on the quantity of outreach
- Be prepared
  - Requirements
  - Know the plan
- Use the summer and days off to your advantage
  - great time to do outreach (not as busy)

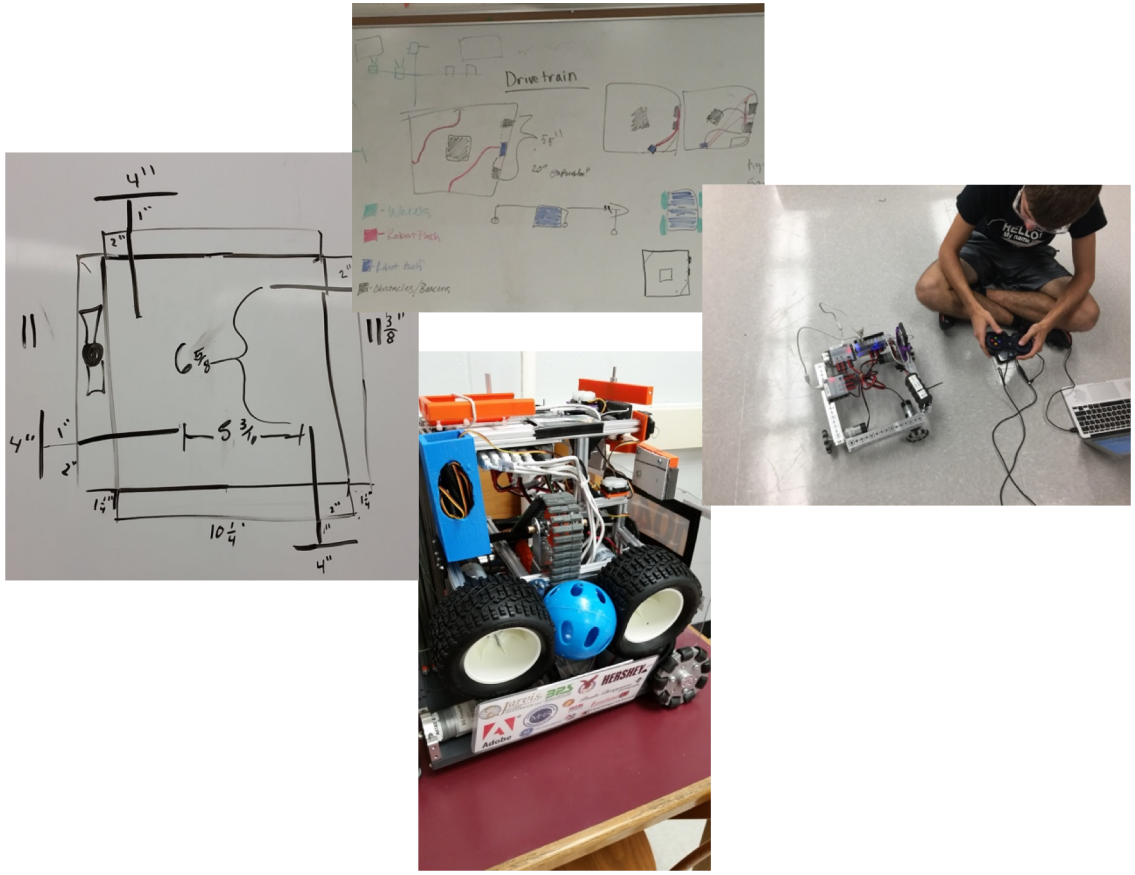
Strategy and Brainstorming

- Major key to success
- Set aside appropriate time for strategy
- Plan before you start building/programming
  - measure twice, cut once
- Strategy controls design
- Reevaluate after competition

Autonomous			
Priority	Action	Points Earned	Extra
1	Beacon	30	Each beacon adds a particle
3	Cap Ball	5	Knocking it off the platform
	Particles - Corner	5	Particle color matters
2	Particles - Vortex	15	Particle color matters
4	Parking - partial platform	5	Not completely on center platform
4	Parking - full platform	10	Fully on center platform
	Parking - partial corner	5	Not completely on corner platform
	Parking - full corner	10	Fully on corner platform
Teleop			
Priority	Action	Points Earned	Extra
3	Particles - Corner	1	Particle color matters, must touch the field before being scored again
1	Particles - Vortex	5	Particle color matters, must touch the field before being scored again
END GAME			
Priority	Action	Points Earned	Extra
4	Cap Ball - low	10	Lifted lower than the cross beam (30 inches)
3	Cap Ball - high	20	Lifted with the lowest point above the cross beam (30 inches)
1	Cap Ball - capped	40	Cap Ball is not in contact with robot and in vortex
2	Beacon	10	Beacons are scored at the end of the game

Build

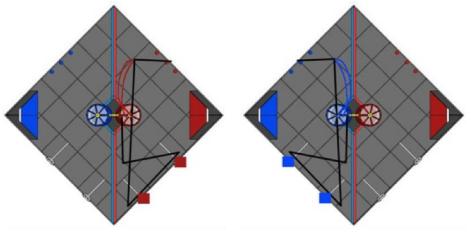
- Division of work
- Initial Design
  - Follow strategy requirements
  - Brainstorming
- Prototype
  - Try different mechanisms
  - Evaluate against strategy
- Finalize Design
  - Decide on mechanisms
- Build it

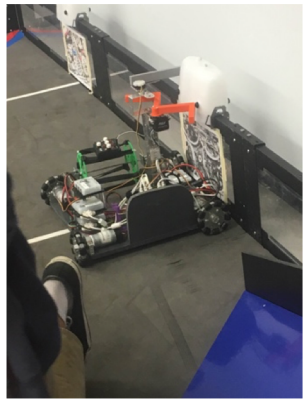


Make sure you are communicating with your programmers to see where they are, what they need built, and when programmers can have the robot to test. Create a nice balance and leave time.

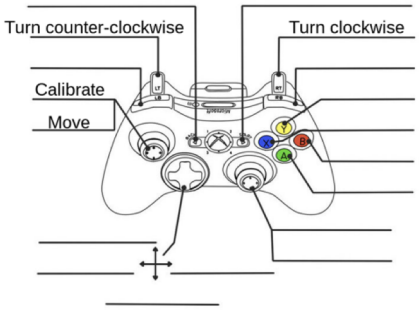
Programming

- Autonomous
- Lay out objectives
- Plan path
- Maximize time
- TEST
  - Takes a lot of time, so plan ahead
- TeleOp
- Optimize to drivers
- Plan for complexity level





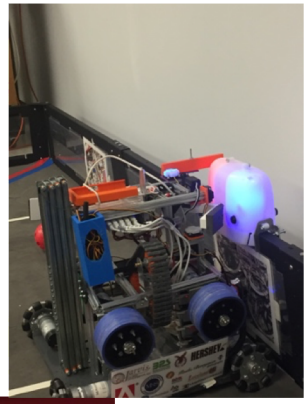
```
public static class MoveState{
   public static final int STOP = 0;
   public static final int FORWARD = 1;
   public static final int BACKWARD = 2;
   public static final int LEFT = 3;
   public static final int RIGHT = 4;
   public static final int TURN_TOWARDS_GOAL = 5;
   public static final int SHOOT = 6;
   public static final int SERVO_R = 7;
   public static final int SERVO_L = 8;
   public static final int BACKWARD_SLOW = 9;
   public static final int SERVO_M = 10;
   public static final int SHOOT_STOP = 11;
   public static final int FULL_STOP = 12;
   public static final int SHOOT_CONVEYOR = 13;
   public static final int SHOOT_WHEEL = 14;
   ...
```

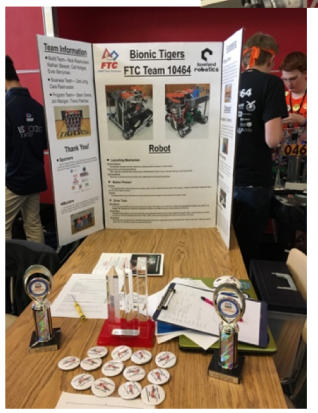


Make sure you are communicating with your builders to see where they are, what they need programmed, and when programmers can have the robot to test.

Competitions

- Practice
  - Presentation
  - Autonomous
  - Driver
- Have Robot prepared
- Print Engineering Notebook
- Turn in award videos
- Handouts
  - Scouting sheet information
  - Buttons/Bracelets
- Displays
  - Pit displays
  - Interview visuals
  - Spirit items





Make a packing list

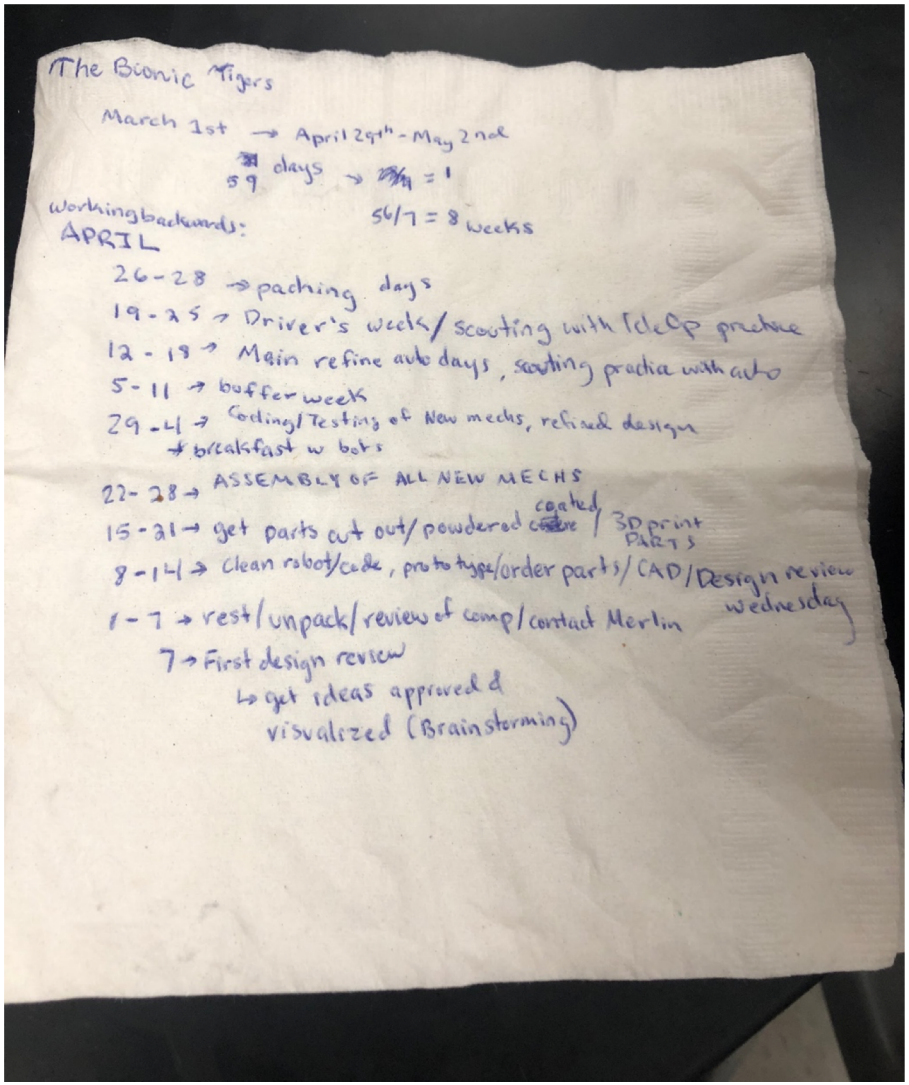
Make a schedule and plan out your weeks until competition

Scheduling

- Leave a buffer week incase building or programming takes longer than expected
- Auto week
  - allow programmers to have full control of robot to test with all mechanisms done
- Prototype week
- Build week
- Presentation
- Drive practice week

Scheduling Example

- Use google sheets, but napkins work too



Credits

- This lesson was written by The Bionic Tigers 10464 for FTCTutorials.com
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