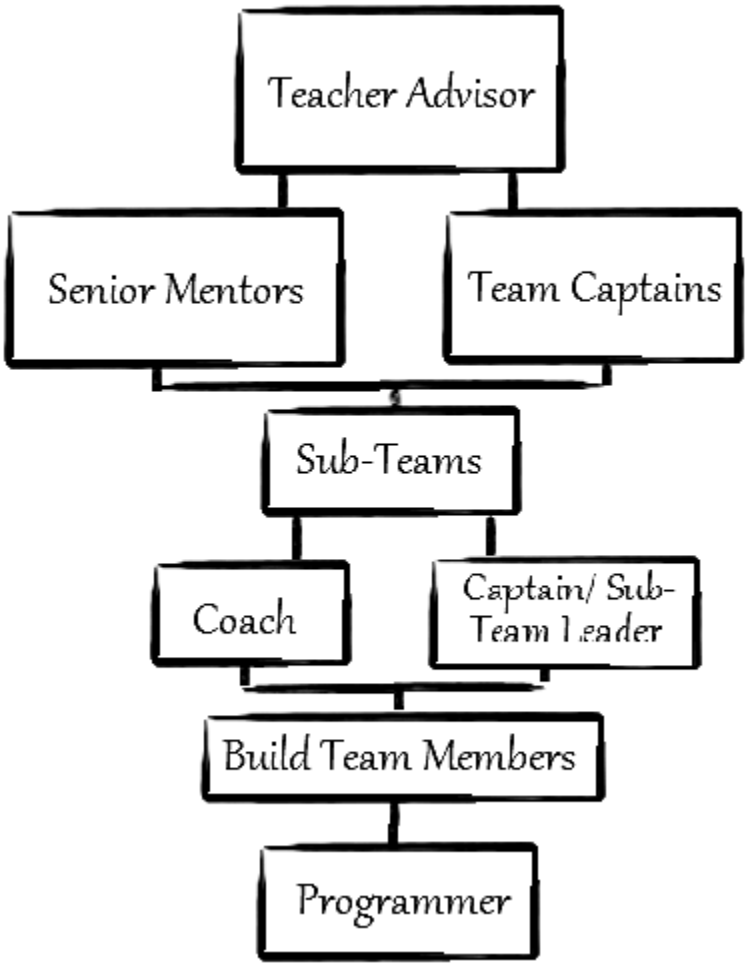
Building Blocks to Team Management

211 SWC Robodogs

Practices



The **teacher advisor** is responsible for the administration of the team, trip planning, budgets, ordering parts and tries to integrate robotics and STEM into classes.

Senior mentors are returning members of the team who help with robot design, programming, general trouble shooting, and competition strategies.

Team Captains deputize for the teacher advisor in his absence by overseeing practices.

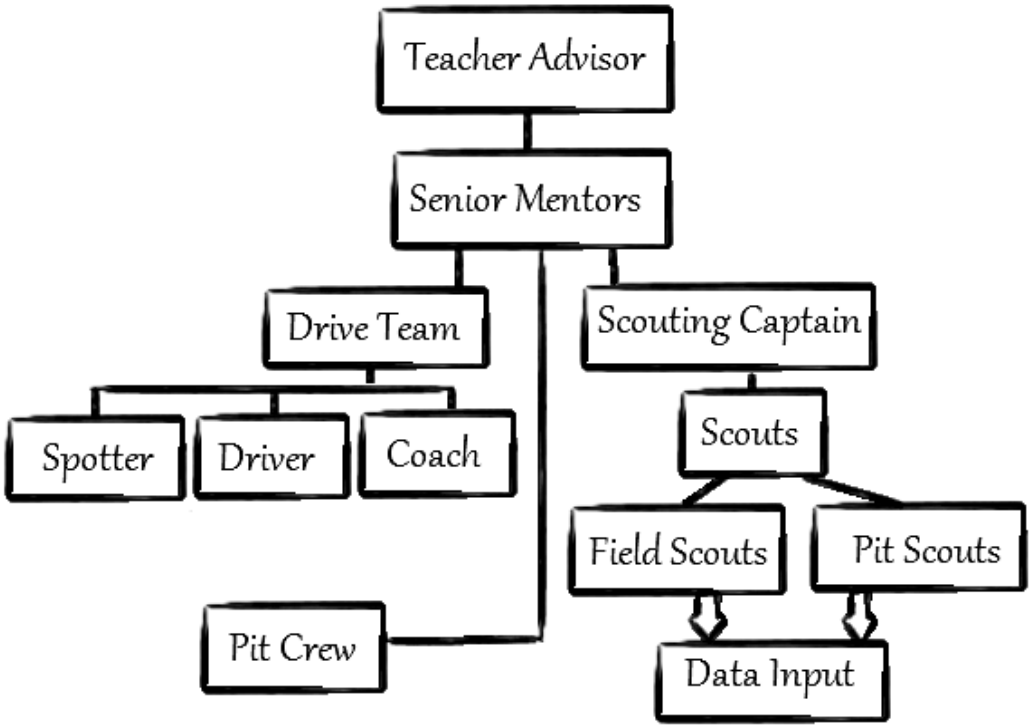
The **sub-team coach** gives advice to younger members of the team, helps brain storm ideas, and oversees the construction of the robot. They are important for the educational experience and overall quality of the robot.

The **sub-team captain** has the final say in decisions. They're also the liaison between the teacher advisor and the sub team, while keeping order and ensuring progress for the team.

The **build teams** design and build a competitive robot. They meet daily to construct the robot and improve it to increase its efficiency.

Programmers use EasyC programming to assign commands to the controller, so the driver can assume control of the robot. They are also responsible for setting up an autonomous mode for the robot (where the robot performs without driver control).

Competition



Drive team

The **coach** gives strategic instructions to the driver based on observations of the match made by the spotter.

The **spotter** updates the coach consistently regarding the movements of the opponent.

The **driver** drives the robot according to the coach`s instructions.

The drive team represents the robot and team at competitions. In addition to being good competitors the drive team must also be polite, courteous and good team players

Pit Crew

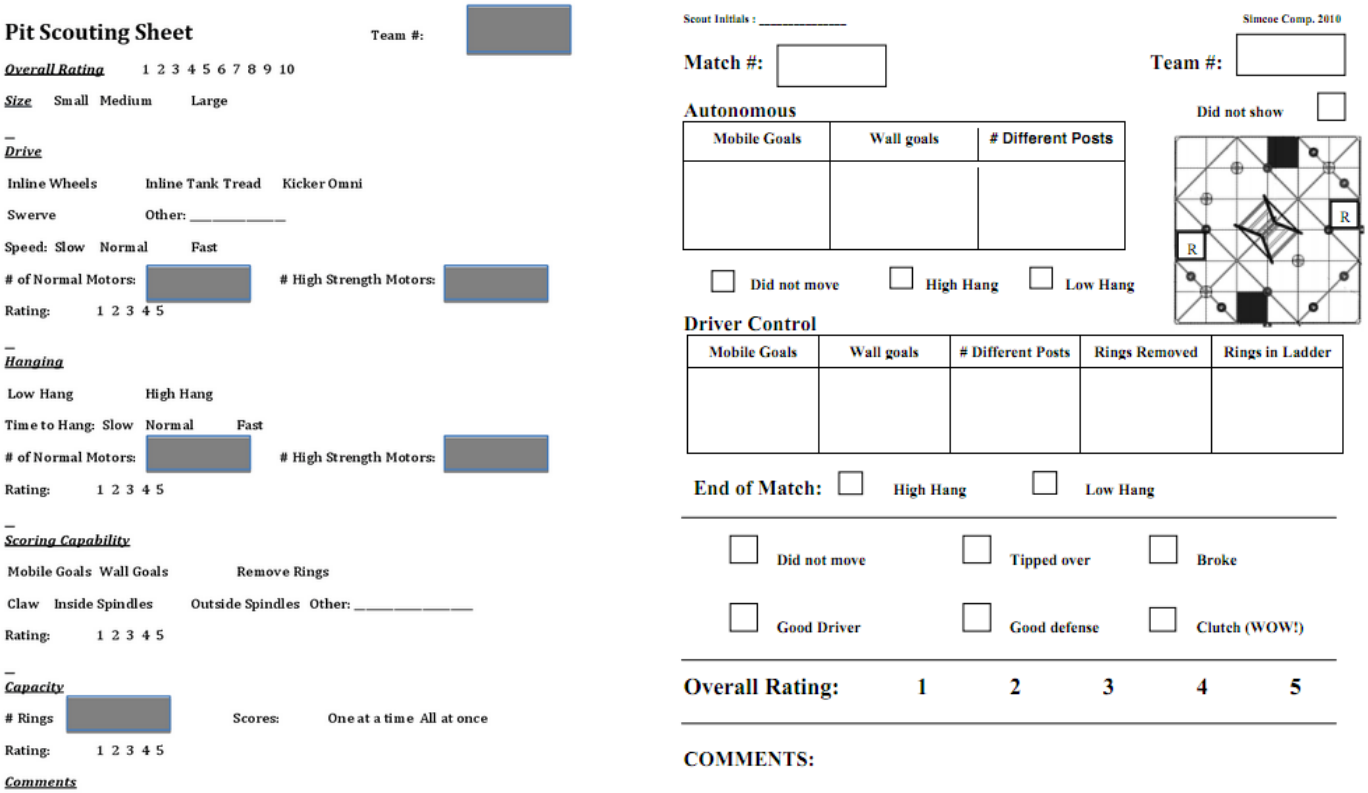
The pit crew answers any questions the judges or future alliance partners may have regarding the robot. Most importantly, they maintain the robot in working condition throughout the competition.

Scouting

Scouting captains are responsible for training the scouts before competitions. They oversee the scouts during the competition and answer any questions the scouts may have.

Pit scouts stay in the pit (preparation area) to collect information regarding other robots including their speed, the amount of points they can theoretically score, and the robot's appearance.

Field scouts record match data about each robot including the amount of points they scored, whether they are a defensive or offensive robot, special abilities and driver competence.



Pit Scouting Sheet Team #:

Overall Rating 1 2 3 4 5 6 7 8 9 10

Size Small Medium Large

Drive

Inline Wheels Inline Tank Tread Kicker Omni

Swerve Other: _____

Speed: Slow Normal Fast

# of Normal Motors: # High Strength Motors:

Rating: 1 2 3 4 5

Hanging

Low Hang High Hang

Time to Hang: Slow Normal Fast

# of Normal Motors: # High Strength Motors:

Rating: 1 2 3 4 5

Scoring Capability

Mobile Goals Wall Goals Remove Rings

Claw Inside Spindles Outside Spindles Other: _____

Rating: 1 2 3 4 5

Capacity

Rings Scores: One at a time All at once

Rating: 1 2 3 4 5

Comments

Scout Initials : _____ Simcoe Comp. 2010

Match #: Team #:

Autonomous Did not show

Mobile Goals	Wall goals	# Different Posts

Did not move High Hang Low Hang

Driver Control

Mobile Goals	Wall goals	# Different Posts	Rings Removed	Rings in Ladder

End of Match: High Hang Low Hang

Did not move Tipped over Broke

Good Driver Good defense Clutch (WOW!)

Overall Rating: 1 2 3 4 5

COMMENTS:

Figure 1 Sample Scouting sheets

Members of the **data entry** transfer the scouting results from paper to spreadsheet format. The information is then used to rank the robots according to their ability.

Fundraising committee

They organize events to raise funds for the multiple needs of the team, including robotic parts, competition registration and traveling expenses.

Some final tips:

1. Driver practice is essential. Even the greatest robot needs an experienced driver to have it perform at its potential.

2. You're allowed ten motors, use them. Even if you don't need ten motors, it's still in your best interest to use them. They may be used for extra strength or backup.

3. Have fun! Robotics shouldn't become tedious.