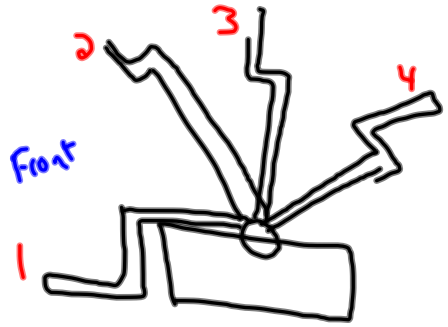
Harvesters

In = Angle Setpoint
Current Position
Roller System 1 Control
Roller System 2 Control
Driver Joystick Movement
Limit Switch (2x)
Photo Electric Sensor

Out = Angle Movement
Roller System 1 Movement
Roller System 2 Movement
~~Angle Setpoint~~
Light
Enable Shoot

Angle Cases -

0 : Not Move, Default
1 : Floor Pick up
2 : Straight up / Priming Shooter
3 : Human Player Load
4 : Dump
5 : Controlled by Operator



Function: -

1. Pick up Discs from the floor
2. Transfer to the Shooter
3. Release discs to indexer
4. Grab from human player
5. Spit colored discs on top of pyramid
6. De-Jam
7. Store 4 discs
8. Diagnostics

Shooter:

In: Enable Indexer
Target Information
Driver Joystick Input
vision Tracking Enable
Elevation Setpoint
Elevation Position

Out: Shooter Wheel Speed F
Shooter Wheel Speed B
Shooter Angle movement
Indexer Output

Elevation Cases:

0: Not Move, default
1: Controllrd by vision tracking
2: Controlled by Operator
-3 = Setpoint 1: 45°
4: Set point 2: 24°
5: Set point 3: 13°

Functions:

1. Shoot Frisbee at variable speed
2. Change the angle of Elevation
3. Firing
4. Independent Motor Control
5. Diagnostics
6. Target vision goals

Climber:

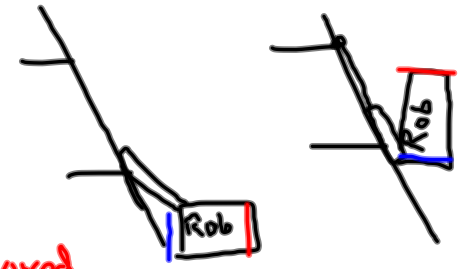
In: Initiate deploy
Deploy rotation
Limit switch
Initiate Fold up
Driver Joystick Movement
- Extension
- Rotation
Extension POT

Out: Deployment Rotation Movement
Extension Movement
Light (locked to Pyramid)

Cases

Extension
0: Not Move, Default
1: Driver control
2: Extended Fully
3: Retracted

Deployment
0: Not Move, Default
1: Stored
2: Unfolded / Deployed
3: Folded
4: Driver enabled



Functions:
1. Latch on to the pole
2. Fold-up
3. Extend secondary arm and grab
4. Pull-up

Vision Processing:

In = Vision Enable
Camera Settings
Camera RefNum

Out = Target array

Cases:
Defined by WPI Robotics library

Functions:

1. Acquire Camera Feed
2. Perform Mask to narrow out everything but the targets
3. Obtain Target info