C:\Users\yaels\anaconda3\envs\Gymmy\python.exe "C:\Users\yaels\יעל פרוייקט גמר\zedcheck\TrainingNew.py"

pygame 2.5.2 (SDL 2.28.3, Python 3.11.9)

Hello from the pygame community. https://www.pygame.org/contribute.html

screen start

CAMERA INITIALIZATION

ROBOT INITIALIZATION

CAMERA START

MP INITIALIZATION

Training: start exercises

MP START

ROBOT START

CAMERA: Exercise hello\_waving start

CAMERA: Exercise hello\_waving done

TRAINING: Exercise raise\_arms\_above\_head\_ball start

CAMERA: Exercise raise\_arms\_above\_head\_ball start

ROBOT: Exercise raise\_arms\_above\_head\_ball start

7.29 8.75

158.05 151.17

first angle mean: 7.29

first angle stdev: 0.0

second angle mean: 158.05

second angle stdev: 0.0

7.53 8.07

158.28 149.96

first angle mean: 7.41

first angle stdev: 0.120000124

second angle mean: 158.16501

second angle stdev: 0.114997864

7.16 9.81

161.79 151.67

first angle mean: 7.3266664

first angle stdev: 0.15326099

second angle mean: 159.37334

second angle stdev: 1.7114155

6.23 10.14

157.99 152.45

first angle mean: 7.0525

first angle stdev: 0.49307078

second angle mean: 159.0275

second angle stdev: 1.5985949

8.86 8.81

157.86 150.2

first angle mean: 7.414

first angle stdev: 0.8468907

second angle mean: 158.79399

second angle stdev: 1.5041587

8.82 8.63

158.61 153.78

first angle mean: 7.648333

first angle stdev: 0.93394166

second angle mean: 158.76332

second angle stdev: 1.3748139

8.98 8.63

158.75 153.21

first angle mean: 7.838571

first angle stdev: 0.9822338

second angle mean: 158.76143

second angle stdev: 1.272839

10.43 9.15

159.89 154.9

first angle mean: 8.1625

first angle stdev: 1.2564608

second angle mean: 158.9025

second angle stdev: 1.2477628

10.58 9.35

159.53 155.28

first angle mean: 8.431111

first angle stdev: 1.4073019

second angle mean: 158.97223

second angle stdev: 1.1928164

11.02 10.06

159.0 156.42

first angle mean: 8.690001

first angle stdev: 1.5445583

second angle mean: 158.975

second angle stdev: 1.1316357

12.04 10.92

159.76 157.02

first angle mean: 8.994546

first angle stdev: 1.7596197

second angle mean: 159.04637

second angle stdev: 1.1023195

11.43 11.03

160.3 156.21

first angle mean: 9.197501

first angle stdev: 1.8142037

second angle mean: 159.15083

second angle stdev: 1.1108118

11.09 10.55

159.57 154.21

first angle mean: 9.343078

first angle stdev: 1.8145158

second angle mean: 159.18309

second angle stdev: 1.0730627

9.33 10.01

158.01 154.52

first angle mean: 9.342143

first angle stdev: 1.7485144

second angle mean: 159.09929

second angle stdev: 1.0772603

7.96 9.62

158.93 156.3

first angle mean: 9.250001

first angle stdev: 1.7240496

second angle mean: 159.088

second angle stdev: 1.0415887

7.54 9.58

160.18 155.57

first angle mean: 9.143125

first angle stdev: 1.7198573

second angle mean: 159.15625

second angle stdev: 1.0425787

8.31 10.89

159.7 155.35

first angle mean: 9.094117

first angle stdev: 1.6799828

second angle mean: 159.18823

second angle stdev: 1.0195096

4.88 8.27

157.3 153.26

first angle mean: 8.86

first angle stdev: 1.8966637

second angle mean: 159.08333

second angle stdev: 1.0810779

8.34 7.62

153.99 140.18

first angle mean: 8.832631

first angle stdev: 1.849725

second angle mean: 158.81526

second angle stdev: 1.5494268

18.45 10.45

148.17 123.41

first angle mean: 9.313499

first angle stdev: 2.7647536

second angle mean: 158.28299

second angle stdev: 2.7682965

32.15 22.65

139.44 118.8

first angle mean: 10.400951

first angle stdev: 5.561558

second angle mean: 157.38571

second angle stdev: 4.837455

68.27 76.01

107.69 123.25

first angle mean: 13.031363

first angle stdev: 13.222151

second angle mean: 155.12682

second angle stdev: 11.37946

73.8 78.88

98.25 108.44

first angle mean: 15.673478

first angle stdev: 17.910923

second angle mean: 152.6539

second angle stdev: 16.074755

78.21 74.59

111.35 106.36

first angle mean: 18.279167

first angle stdev: 21.531267

second angle mean: 150.93292

second angle stdev: 17.769447

85.61 80.79

138.05 123.94

first angle mean: 20.9724

first angle stdev: 24.88244

second angle mean: 150.4176

second angle stdev: 17.592506

91.55 84.1

151.03 131.11

first angle mean: 23.686922

first angle stdev: 27.920223

second angle mean: 150.44116

second angle stdev: 17.251274

95.96 90.67

150.51 136.84

first angle mean: 26.363705

first angle stdev: 30.609818

second angle mean: 150.44371

second angle stdev: 16.928799

101.79 98.39

147.01 135.28

first angle mean: 29.057499

first angle stdev: 33.15757

second angle mean: 150.32108

second angle stdev: 16.635958

103.67 105.55

142.35 136.4

first angle mean: 31.630344

first angle stdev: 35.31091

second angle mean: 150.04622

second angle stdev: 16.411192

104.44 109.9

139.43 138.06

first angle mean: 34.05733

first angle stdev: 37.096043

second angle mean: 149.69235

second angle stdev: 16.2475

106.55 114.65

137.05 137.94

first angle mean: 36.395805

first angle stdev: 38.6753

second angle mean: 149.28453

second angle stdev: 16.138622

109.66 115.71

139.27 135.14

first angle mean: 38.68531

first angle stdev: 40.1439

second angle mean: 148.97156

second angle stdev: 15.979739

112.66 116.38

138.75 134.16

first angle mean: 40.926968

first angle stdev: 41.515053

second angle mean: 148.66182

second angle stdev: 15.833012

127.14 115.78

141.51 134.09

first angle mean: 43.462646

first angle stdev: 43.41644

second angle mean: 148.45146

second angle stdev: 15.645168

108.26 114.85

150.81 119.27

first angle mean: 45.314

first angle stdev: 44.132366

second angle mean: 148.51884

second angle stdev: 15.425052

79.91 122.32

159.3 132.7

first angle mean: 46.275

first angle stdev: 43.88493

second angle mean: 148.81831

second angle stdev: 15.312153

90.99 126.77

178.71 142.09

first angle mean: 47.483513

first angle stdev: 43.890934

second angle mean: 149.6262

second angle stdev: 15.862581

126.56 128.97

159.34 138.53

first angle mean: 49.564472

first angle stdev: 45.121433

second angle mean: 149.88182

second angle stdev: 15.729514

counter:1

128.27 128.48

141.81 138.81

first angle mean: 51.58256

first angle stdev: 46.243942

second angle mean: 149.67485

second angle stdev: 15.578876

124.61 125.83

146.15 139.71

first angle mean: 53.408253

first angle stdev: 47.064125

second angle mean: 149.58675

second angle stdev: 15.392748

122.99 124.11

148.72 141.1

first angle mean: 55.105366

first angle stdev: 47.70969

second angle mean: 149.56561

second angle stdev: 15.204461

118.58 121.87

147.06 143.82

first angle mean: 56.61667

first angle stdev: 48.12135

second angle mean: 149.50595

second angle stdev: 15.027222

113.36 117.59

144.8 144.87

first angle mean: 57.936283

first angle stdev: 48.321316

second angle mean: 149.3965

second angle stdev: 14.868384

106.25 110.74

139.24 143.32

first angle mean: 59.034325

first angle stdev: 48.308666

second angle mean: 149.16568

second angle stdev: 14.776186

98.23 103.6

134.77 143.4

first angle mean: 59.90534

first angle stdev: 48.117023

second angle mean: 148.84578

second angle stdev: 14.764372

94.55 98.93

134.34 142.69

first angle mean: 60.658485

first angle stdev: 47.85856

second angle mean: 148.53043

second angle stdev: 14.755429

92.94 93.45

136.31 140.16

first angle mean: 61.345325

first angle stdev: 47.5753

second angle mean: 148.27043

second angle stdev: 14.703745

87.46 87.68

137.81 141.94

first angle mean: 61.889374

first angle stdev: 47.22464

second angle mean: 148.05249

second angle stdev: 14.626281

80.33 77.64

139.99 139.81

first angle mean: 62.265717

first angle stdev: 46.812943

second angle mean: 147.88795

second angle stdev: 14.521079

63.23 64.53

116.78 117.25

first angle mean: 62.285

first angle stdev: 46.342644

second angle mean: 147.2658

second angle stdev: 15.0203705

55.35 59.35

112.57 110.46

first angle mean: 62.14902

first angle stdev: 45.89613

second angle mean: 146.58548

second angle stdev: 15.631021

62.33 58.32

118.47 109.31

first angle mean: 62.152504

first angle stdev: 45.452686

second angle mean: 146.0448

second angle stdev: 15.95429

59.82 48.6

133.37 109.99

first angle mean: 62.108494

first angle stdev: 45.02296

second angle mean: 145.80565

second angle stdev: 15.896878

53.97 34.99

147.44 111.89

first angle mean: 61.957783

first angle stdev: 44.61763

second angle mean: 145.83592

second angle stdev: 15.750539

37.95 15.09

147.4 110.74

first angle mean: 61.521275

first angle stdev: 44.326363

second angle mean: 145.86435

second angle stdev: 15.608094

21.71 4.88

149.83 121.82

first angle mean: 60.81036

first angle stdev: 44.244064

second angle mean: 145.93518

second angle stdev: 15.477021

16.06 6.71

156.23 141.3

first angle mean: 60.025265

first angle stdev: 44.246033

second angle mean: 146.1158

second angle stdev: 15.400081

11.45 11.75

160.84 161.18

first angle mean: 59.18776

first angle stdev: 44.316345

second angle mean: 146.36966

second angle stdev: 15.386586

5.47 9.65

161.93 167.88

first angle mean: 58.27729

first angle stdev: 44.482925

second angle mean: 146.63339

second angle stdev: 15.387286

5.12 7.42

161.5 166.98

first angle mean: 57.39134

first angle stdev: 44.632526

second angle mean: 146.88116

second angle stdev: 15.376756

5.69 6.92

160.83 164.59

first angle mean: 56.543774

first angle stdev: 44.749382

second angle mean: 147.10983

second angle stdev: 15.352716

7.26 7.65

160.54 163.01

first angle mean: 55.748875

first angle stdev: 44.819107

second angle mean: 147.32646

second angle stdev: 15.32209

10.55 10.41

159.83 160.56

first angle mean: 55.031433

first angle stdev: 44.81942

second angle mean: 147.52493

second angle stdev: 15.280124

10.26 8.91

158.89 156.98

first angle mean: 54.33188

first angle stdev: 44.81321

second angle mean: 147.7025

second angle stdev: 15.225658

8.97 4.84

158.75 155.57

first angle mean: 53.634003

first angle stdev: 44.81627

second angle mean: 147.87247

second angle stdev: 15.169146

10.12 2.22

156.5 142.98

first angle mean: 52.9747

first angle stdev: 44.791965

second angle mean: 148.00317

second angle stdev: 15.090636

13.15 2.88

153.6 128.47

first angle mean: 52.380302

first angle stdev: 44.717934

second angle mean: 148.08672

second angle stdev: 14.992962

18.52 9.03

149.89 155.15

first angle mean: 51.882355

first angle stdev: 44.574646

second angle mean: 148.11322

second angle stdev: 14.883894

robot count: 1

55.96 63.22

132.4 131.88

first angle mean: 51.941452

first angle stdev: 44.253147

second angle mean: 147.8855

second angle stdev: 14.894502

80.6 92.25

114.38 114.68

first angle mean: 52.35086

first angle stdev: 44.067337

second angle mean: 147.40685

second angle stdev: 15.312913

95.33 98.15

110.23 112.2

first angle mean: 52.956203

first angle stdev: 44.04803

second angle mean: 146.88324

second angle stdev: 15.823241

91.84 91.05

119.17 123.28

first angle mean: 53.49625

first angle stdev: 43.97715

second angle mean: 146.49834

second angle stdev: 16.0442

92.5 88.6

148.67 140.28

first angle mean: 54.03055

first angle stdev: 43.909573

second angle mean: 146.52808

second angle stdev: 15.935929

96.7 88.44

157.49 142.91

first angle mean: 54.607162

first angle stdev: 43.889263

second angle mean: 146.67622

second angle stdev: 15.87841

97.43 93.8

150.22 139.57

first angle mean: 55.17813

first angle stdev: 43.871494

second angle mean: 146.72346

second angle stdev: 15.777435

95.35 99.2

142.18 138.61

first angle mean: 55.70671

first angle stdev: 43.82166

second angle mean: 146.66368

second angle stdev: 15.681842

100.09 104.76

141.89 139.47

first angle mean: 56.283115

first angle stdev: 43.825207

second angle mean: 146.60167

second angle stdev: 15.58905

107.98 109.72

143.43 139.57

first angle mean: 56.945896

first angle stdev: 43.93005

second angle mean: 146.561

second angle stdev: 15.492908

113.69 115.1

144.51 139.89

first angle mean: 57.664173

first angle stdev: 44.109673

second angle mean: 146.53505

second angle stdev: 15.396246

116.46 119.1

143.02 138.4

first angle mean: 58.39912

first angle stdev: 44.3172

second angle mean: 146.49112

second angle stdev: 15.304701

120.73 121.0

142.86 135.47

first angle mean: 59.168636

first angle stdev: 44.577343

second angle mean: 146.44629

second angle stdev: 15.215219

122.63 121.72

142.47 132.69

first angle mean: 59.942554

first angle stdev: 44.84887

second angle mean: 146.3978

second angle stdev: 15.128454

122.8 121.51

141.48 131.5

first angle mean: 60.69987

first angle stdev: 45.102287

second angle mean: 146.33855

second angle stdev: 15.046612

125.39 123.45

139.96 132.26

first angle mean: 61.469994

first angle stdev: 45.378696

second angle mean: 146.26262

second angle stdev: 14.972771

126.25 126.57

135.71 134.04

first angle mean: 62.232113

first angle stdev: 45.648537

second angle mean: 146.13846

second angle stdev: 14.927862

counter:2

120.23 128.17

125.99 134.3

first angle mean: 62.906506

first angle stdev: 45.8063

second angle mean: 145.90419

second angle stdev: 14.997184

117.98 127.23

126.6 133.04

first angle mean: 63.539536

first angle stdev: 45.919086

second angle mean: 145.6823

second angle stdev: 15.052056

117.36 127.76

127.18 134.03

first angle mean: 64.15114

first angle stdev: 46.01243

second angle mean: 145.47205

second angle stdev: 15.094229

118.04 129.34

129.96 135.35

first angle mean: 64.75663

first angle stdev: 46.10443

second angle mean: 145.29776

second angle stdev: 15.097981

120.03 129.39

132.16 134.53

first angle mean: 65.37078

first angle stdev: 46.212215

second angle mean: 145.15178

second angle stdev: 15.076895

121.64 128.72

133.27 132.88

first angle mean: 65.98912

first angle stdev: 46.33047

second angle mean: 145.02121

second angle stdev: 15.044905

121.91 126.65

135.89 132.81

first angle mean: 66.59696

first angle stdev: 46.441383

second angle mean: 144.92195

second angle stdev: 14.992841

119.51 121.72

141.98 134.42

first angle mean: 67.16592

first angle stdev: 46.512283

second angle mean: 144.89032

second angle stdev: 14.915104

116.82 114.94

142.94 135.17

first angle mean: 67.694145

first angle stdev: 46.543823

second angle mean: 144.86958

second angle stdev: 14.836905

111.6 110.24

138.96 136.95

first angle mean: 68.15632

first angle stdev: 46.51454

second angle mean: 144.80737

second angle stdev: 14.7709255

106.09 106.31

135.29 137.82

first angle mean: 68.55146

first angle stdev: 46.43165

second angle mean: 144.70824

second angle stdev: 14.725532

101.81 103.71

132.46 138.74

first angle mean: 68.89433

first angle stdev: 46.31369

second angle mean: 144.58195

second angle stdev: 14.70158

97.21 100.68

131.82 141.06

first angle mean: 69.18327

first angle stdev: 46.16458

second angle mean: 144.45174

second angle stdev: 14.682504

92.65 96.69

134.64 141.55

first angle mean: 69.4203

first angle stdev: 45.99074

second angle mean: 144.35263

second angle stdev: 14.641072

87.99 91.79

136.05 136.67

first angle mean: 69.606

first angle stdev: 45.797493

second angle mean: 144.26959

second angle stdev: 14.591088

83.56 82.97

137.54 132.41

first angle mean: 69.74416

first angle stdev: 45.591145

second angle mean: 144.20297

second angle stdev: 14.533956

71.03 68.66

124.66 119.15

first angle mean: 69.75677

first angle stdev: 45.367287

second angle mean: 144.01137

second angle stdev: 14.590154

56.31 59.05

93.56 94.89

first angle mean: 69.62622

first angle stdev: 45.16577

second angle mean: 143.52155

second angle stdev: 15.338776

45.85 48.61

90.16 82.65

first angle mean: 69.39759

first angle stdev: 45.00795

second angle mean: 143.00845

second angle stdev: 16.128605

53.95 46.34

106.59 99.04

first angle mean: 69.25047

first angle stdev: 44.81823

second angle mean: 142.66162

second angle stdev: 16.436714

41.06 25.48

130.63 95.1

first angle mean: 68.98453

first angle stdev: 44.68949

second angle mean: 142.54811

second angle stdev: 16.400293

11.79 10.44

129.4 97.35

first angle mean: 68.45

first angle stdev: 44.81933

second angle mean: 142.42523

second angle stdev: 16.372427

8.19 13.28

138.22 125.21

first angle mean: 67.89204

first angle stdev: 44.983147

second angle mean: 142.38629

second angle stdev: 16.30143

9.26 4.02

153.07 156.33

first angle mean: 67.354126

first angle stdev: 45.12393

second angle mean: 142.48431

second angle stdev: 16.258419

2.94 4.85

160.05 161.74

first angle mean: 66.76854

first angle stdev: 45.332497

second angle mean: 142.644

second angle stdev: 16.269995

8.43 10.01

164.6 164.97

first angle mean: 66.24297

first angle stdev: 45.46324

second angle mean: 142.8418

second angle stdev: 16.328863

9.28 10.1

165.01 163.35

first angle mean: 65.734375

first angle stdev: 45.575916

second angle mean: 143.03973

second angle stdev: 16.389011

8.66 10.23

161.92 160.84

first angle mean: 65.229294

first angle stdev: 45.687576

second angle mean: 143.20682

second angle stdev: 16.411865

8.62 11.35

157.05 158.7

first angle mean: 64.73272

first angle stdev: 45.792015

second angle mean: 143.32825

second angle stdev: 16.390633

6.55 6.92

155.27 154.16

first angle mean: 64.22678

first angle stdev: 45.911385

second angle mean: 143.43208

second angle stdev: 16.356834

14.39 9.38

155.96 142.21

first angle mean: 63.797157

first angle stdev: 45.94465

second angle mean: 143.54008

second angle stdev: 16.327307

39.5 25.17

143.81 136.54

first angle mean: 63.58949

first angle stdev: 45.802525

second angle mean: 143.5424

second angle stdev: 16.2574

robot count: 2

69.68 54.23

128.75 162.98

first angle mean: 63.641106

first angle stdev: 45.61145

second angle mean: 143.41704

second angle stdev: 16.245056

101.59 104.5

105.39 124.92

first angle mean: 63.960003

first angle stdev: 45.551315

second angle mean: 143.09749

second angle stdev: 16.544903

97.31 98.24

95.33 105.01

first angle mean: 64.237915

first angle stdev: 45.46232

second angle mean: 142.69942

second angle stdev: 17.038446

88.87 88.51

96.25 101.38

first angle mean: 64.44149

first angle stdev: 45.328957

second angle mean: 142.31554

second angle stdev: 17.48122

83.58 81.09

108.06 113.77

first angle mean: 64.59836

first angle stdev: 45.175766

second angle mean: 142.03476

second angle stdev: 17.681282

83.59 80.53

137.56 134.56

first angle mean: 64.75276

first angle stdev: 45.024067

second angle mean: 141.99838

second angle stdev: 17.613844

90.07 85.12

154.58 145.73

first angle mean: 64.95693

first angle stdev: 44.89928

second angle mean: 142.09984

second angle stdev: 17.578732

95.09 92.12

155.5 148.64

first angle mean: 65.198

first angle stdev: 44.79982

second angle mean: 142.20705

second angle stdev: 17.548923

100.31 98.12

151.4 146.38

first angle mean: 65.47666

first angle stdev: 44.730328

second angle mean: 142.28001

second angle stdev: 17.498169

102.61 104.3

143.98 143.57

first angle mean: 65.76906

first angle stdev: 44.6746

second angle mean: 142.2934

second angle stdev: 17.429792

106.58 110.73

142.41 144.33

first angle mean: 66.08789

first angle stdev: 44.64457

second angle mean: 142.2943

second angle stdev: 17.361576

111.3 116.15

141.27 143.88

first angle mean: 66.43837

first angle stdev: 44.64762

second angle mean: 142.28633

second angle stdev: 17.294384

115.89 119.25

143.05 142.21

first angle mean: 66.81876

first angle stdev: 44.68493

second angle mean: 142.29222

second angle stdev: 17.227869

121.47 120.56

146.76 138.7

first angle mean: 67.235954

first angle stdev: 44.767467

second angle mean: 142.32632

second angle stdev: 17.166393

125.8 121.58

149.53 134.95

first angle mean: 67.67962

first angle stdev: 44.88574

second angle mean: 142.38089

second angle stdev: 17.112648

127.42 123.75

148.93 136.25

first angle mean: 68.1288

first angle stdev: 45.013477

second angle mean: 142.43013

second angle stdev: 17.057577

127.23 125.2

146.46 138.47

first angle mean: 68.56985

first angle stdev: 45.132744

second angle mean: 142.4602

second angle stdev: 16.997349

counter:3

133.96 131.49

145.99 140.71

first angle mean: 69.05422

first angle stdev: 45.313515

second angle mean: 142.48636

second angle stdev: 16.936983

132.06 133.12

143.48 142.96

first angle mean: 69.5175

first angle stdev: 45.466373

second angle mean: 142.49368

second angle stdev: 16.874815

130.82 133.34

141.78 143.45

first angle mean: 69.96496

first angle stdev: 45.599697

second angle mean: 142.48846

second angle stdev: 16.813225

116.67 133.59

132.26 144.54

first angle mean: 70.3034

first angle stdev: 45.60655

second angle mean: 142.41435

second angle stdev: 16.774645

112.31 134.06

130.54 144.43

first angle mean: 70.605606

first angle stdev: 45.58066

second angle mean: 142.32892

second angle stdev: 16.744295

125.29 133.83

138.5 142.98

first angle mean: 70.996216

first angle stdev: 45.650455

second angle mean: 142.30156

second angle stdev: 16.687502

128.6 131.56

143.85 141.97

first angle mean: 71.404755

first angle stdev: 45.744408

second angle mean: 142.31256

second angle stdev: 16.628729

127.53 126.75

144.99 140.11

first angle mean: 71.799995

first angle stdev: 45.824028

second angle mean: 142.3314

second angle stdev: 16.571587

124.25 122.37

144.07 138.36

first angle mean: 72.16678

first angle stdev: 45.87222

second angle mean: 142.34355

second angle stdev: 16.51418

116.1 116.38

139.83 137.74

first angle mean: 72.47187

first angle stdev: 45.85802

second angle mean: 142.32611

second angle stdev: 16.458061

108.08 110.5

137.37 138.31

first angle mean: 72.717445

first angle stdev: 45.794533

second angle mean: 142.29193

second angle stdev: 16.406338

100.89 104.06

135.4 139.32

first angle mean: 72.91041

first angle stdev: 45.696545

second angle mean: 142.24474

second angle stdev: 16.359934

93.72 97.05

135.23 141.33

first angle mean: 73.05198

first angle stdev: 45.57296

second angle mean: 142.197

second angle stdev: 16.314386

89.06 88.75

139.03 135.24

first angle mean: 73.16013

first angle stdev: 45.437668

second angle mean: 142.17563

second angle stdev: 16.261246

84.54 81.94

143.07 132.42

first angle mean: 73.23651

first angle stdev: 45.294464

second angle mean: 142.18163

second angle stdev: 16.20675

80.09 75.68

145.21 129.56

first angle mean: 73.2822

first angle stdev: 45.146675

second angle mean: 142.20181

second angle stdev: 16.154518

73.34 72.2

135.52 121.49

first angle mean: 73.282585

first angle stdev: 44.996933

second angle mean: 142.15756

second angle stdev: 16.110056

62.49 68.44

111.86 118.92

first angle mean: 73.21158

first angle stdev: 44.857162

second angle mean: 141.9582

second angle stdev: 16.242714

53.18 62.25

97.32 115.2

first angle mean: 73.08065

first angle stdev: 44.739456

second angle mean: 141.66646

second angle stdev: 16.58432

66.83 68.95

92.33 104.05

first angle mean: 73.04006

first angle stdev: 44.59679

second angle mean: 141.34612

second angle stdev: 16.99873

81.15 67.47

105.54 95.17

first angle mean: 73.09239

first angle stdev: 44.457436

second angle mean: 141.1151

second angle stdev: 17.184605

74.75 50.87

121.67 85.14

first angle mean: 73.10301

first angle stdev: 44.314915

second angle mean: 140.99045

second angle stdev: 17.19959

56.52 34.81

138.27 88.58

first angle mean: 72.99739

first angle stdev: 44.193253

second angle mean: 140.97311

second angle stdev: 17.146093

24.94 14.63

149.76 120.88

first angle mean: 72.69322

first angle stdev: 44.217728

second angle mean: 141.02873

second angle stdev: 17.105946

8.4 1.96

154.91 141.91

first angle mean: 72.288864

first angle stdev: 44.370537

second angle mean: 141.11603

second angle stdev: 17.087343

2.47 3.91

156.76 154.8

first angle mean: 71.8525

first angle stdev: 44.572594

second angle mean: 141.2138

second angle stdev: 17.07842

1.18 2.9

157.93 162.29

first angle mean: 71.41354

first angle stdev: 44.779526

second angle mean: 141.31763

second angle stdev: 17.075878

4.94 9.56

158.53 166.26

first angle mean: 71.003204

first angle stdev: 44.9437

second angle mean: 141.42387

second angle stdev: 17.076395

5.61 9.73

157.88 163.13

first angle mean: 70.60202

first angle stdev: 45.095646

second angle mean: 141.52484

second angle stdev: 17.07236

4.81 7.86

155.48 158.02

first angle mean: 70.20085

first angle stdev: 45.24876

second angle mean: 141.60994

second angle stdev: 17.054865

4.78 5.01

159.23 154.41

first angle mean: 69.80436

first angle stdev: 45.39629

second angle mean: 141.71672

second angle stdev: 17.058014

9.8 5.38

159.61 142.67

first angle mean: 69.44289

first angle stdev: 45.496895

second angle mean: 141.82452

second angle stdev: 17.062828

26.5 12.24

150.83 121.51

first angle mean: 69.185745

first angle stdev: 45.481304

second angle mean: 141.87843

second angle stdev: 17.025846

40.89 24.99

146.43 137.19

first angle mean: 69.01732

first angle stdev: 45.39795

second angle mean: 141.90553

second angle stdev: 16.978708

80.05 86.15

105.32 116.24

first angle mean: 69.0826

first angle stdev: 45.271343

second angle mean: 141.68904

second angle stdev: 17.159372

robot count: 3

92.67 94.33

100.03 106.57

first angle mean: 69.22135

first angle stdev: 45.174023

second angle mean: 141.444

second angle stdev: 17.402891

97.47 91.02

111.9 109.52

first angle mean: 69.38655

first angle stdev: 45.09321

second angle mean: 141.27122

second angle stdev: 17.497543

94.11 87.29

128.39 128.44

first angle mean: 69.53029

first angle stdev: 45.001205

second angle mean: 141.19633

second angle stdev: 17.47407

92.27 88.41

141.95 137.49

first angle mean: 69.661736

first angle stdev: 44.90406

second angle mean: 141.20068

second angle stdev: 17.423588

94.56 89.05

149.42 136.97

first angle mean: 69.804825

first angle stdev: 44.814377

second angle mean: 141.24794

second angle stdev: 17.384554

98.3 94.11

147.56 136.06

first angle mean: 69.96766

first angle stdev: 44.73774

second angle mean: 141.284

second angle stdev: 17.341341

103.26 102.44

141.88 141.35

first angle mean: 70.156815

first angle stdev: 44.680595

second angle mean: 141.28737

second angle stdev: 17.292063

108.95 111.21

136.3 141.76

first angle mean: 70.37599

first angle stdev: 44.648975

second angle mean: 141.2592

second angle stdev: 17.247196

113.4 115.11

135.72 139.31

first angle mean: 70.6177

first angle stdev: 44.639355

second angle mean: 141.22807

second angle stdev: 17.203665

115.98 118.61

136.73 138.14

first angle mean: 70.87112

first angle stdev: 44.642708

second angle mean: 141.20296

second angle stdev: 17.15882

116.26 120.18

137.94 138.02

first angle mean: 71.123276

first angle stdev: 44.646175

second angle mean: 141.18483

second angle stdev: 17.112806

118.49 122.17

138.65 137.38

first angle mean: 71.38497

first angle stdev: 44.660892

second angle mean: 141.17082

second angle stdev: 17.066502

120.28 123.6

138.03 138.25

first angle mean: 71.653625

first angle stdev: 44.68445

second angle mean: 141.15356

second angle stdev: 17.021135

123.37 125.67

138.75 138.6

first angle mean: 71.93623

first angle stdev: 44.724987

second angle mean: 141.14043

second angle stdev: 16.97549

128.7 128.0

141.56 138.39

first angle mean: 72.24473

first angle stdev: 44.798096

second angle mean: 141.14272

second angle stdev: 16.929327

counter:4

129.06 126.62

135.34 136.75

first angle mean: 72.551834

first angle stdev: 44.87065

second angle mean: 141.11134

second angle stdev: 16.88887

130.25 126.06

137.2 137.49

first angle mean: 72.862045

first angle stdev: 44.948338

second angle mean: 141.09033

second angle stdev: 16.845837

129.66 127.05

137.83 140.16

first angle mean: 73.16578

first angle stdev: 45.018974

second angle mean: 141.07288

second angle stdev: 16.802416

127.87 127.4

136.93 141.65

first angle mean: 73.45676

first angle stdev: 45.075058

second angle mean: 141.05084

second angle stdev: 16.760378

124.08 125.98

136.04 141.3

first angle mean: 73.7246

first angle stdev: 45.10541

second angle mean: 141.02434

second angle stdev: 16.719934

120.86 123.94

136.85 140.61

first angle mean: 73.97269

first angle stdev: 45.115654

second angle mean: 141.00237

second angle stdev: 16.67861

117.7 121.29

137.55 140.33

first angle mean: 74.20162

first angle stdev: 45.107918

second angle mean: 140.9843

second angle stdev: 16.636757

113.68 117.93

137.17 140.76

first angle mean: 74.40724

first angle stdev: 45.07995

second angle mean: 140.96443

second angle stdev: 16.595648

109.64 112.78

135.9 141.17

first angle mean: 74.58979

first angle stdev: 45.034107

second angle mean: 140.93819

second angle stdev: 16.556591

104.29 108.08

133.72 142.54

first angle mean: 74.74289

first angle stdev: 44.968212

second angle mean: 140.90097

second angle stdev: 16.521952

98.53 103.42

135.4 144.03

first angle mean: 74.864876

first angle stdev: 44.884933

second angle mean: 140.87277

second angle stdev: 16.484217

96.64 98.83

139.22 143.01

first angle mean: 74.975975

first angle stdev: 44.797157

second angle mean: 140.86433

second angle stdev: 16.442533

93.27 93.52

144.0 144.58

first angle mean: 75.06883

first angle stdev: 44.70222

second angle mean: 140.88025

second angle stdev: 16.402262

89.62 87.01

143.37 142.12

first angle mean: 75.14233

first angle stdev: 44.601124

second angle mean: 140.89284

second angle stdev: 16.36174

79.44 76.49

134.28 129.29

first angle mean: 75.163925

first angle stdev: 44.489956

second angle mean: 140.8596

second angle stdev: 16.327276

65.33 67.55

118.94 111.15

first angle mean: 75.11475

first angle stdev: 44.384014

second angle mean: 140.75

second angle stdev: 16.359627

59.42 60.87

112.93 109.95

first angle mean: 75.03667

first angle stdev: 44.287235

second angle mean: 140.61159

second angle stdev: 16.435852

63.71 55.77

119.75 105.72

first angle mean: 74.98059

first angle stdev: 44.18463

second angle mean: 140.50832

second angle stdev: 16.460367

70.1 46.87

110.96 77.65

first angle mean: 74.95655

first angle stdev: 44.076992

second angle mean: 140.36276

second angle stdev: 16.549587

63.22 34.28

110.87 74.99

first angle mean: 74.89902

first angle stdev: 43.976467

second angle mean: 140.21819

second angle stdev: 16.636982

47.17 22.46

117.58 86.76

first angle mean: 74.763756

first angle stdev: 43.9116

second angle mean: 140.10776

second angle stdev: 16.671135

35.1 20.98

138.81 124.29

first angle mean: 74.571205

first angle stdev: 43.89155

second angle mean: 140.10146

second angle stdev: 16.630865

9.88 9.82

153.76 150.56

first angle mean: 74.25869

first angle stdev: 44.014553

second angle mean: 140.16743

second angle stdev: 16.617655

1.65 5.08

157.62 159.84

first angle mean: 73.909615

first angle stdev: 44.194923

second angle mean: 140.25134

second angle stdev: 16.621557

2.56 5.32

157.52 161.78

first angle mean: 73.56823

first angle stdev: 44.36313

second angle mean: 140.33397

second angle stdev: 16.624508

5.2 7.45

156.78 160.92

first angle mean: 73.24267

first angle stdev: 44.50694

second angle mean: 140.41228

second angle stdev: 16.623478

8.67 11.32

156.77 155.92

first angle mean: 72.93664

first angle stdev: 44.62227

second angle mean: 140.48979

second angle stdev: 16.622046

14.83 14.44

156.56 152.87

first angle mean: 72.662544

first angle stdev: 44.694588

second angle mean: 140.5656

second angle stdev: 16.619312

20.92 15.71

154.32 143.37

first angle mean: 72.419624

first angle stdev: 44.72961

second angle mean: 140.63019

second angle stdev: 16.606894

34.37 21.89

153.07 126.78

first angle mean: 72.24182

first angle stdev: 44.700363

second angle mean: 140.68831

second angle stdev: 16.589754

58.31 39.31

136.35 106.03

first angle mean: 72.177025

first angle stdev: 44.60636

second angle mean: 140.66814

second angle stdev: 16.553759

84.71 74.79

112.28 105.65

first angle mean: 72.23505

first angle stdev: 44.51112

second angle mean: 140.53671

second angle stdev: 16.627447

85.54 84.37

99.8 104.82

first angle mean: 72.296364

first angle stdev: 44.41758

second angle mean: 140.34898

second angle stdev: 16.816957

87.72 86.07

108.82 119.12

first angle mean: 72.36711

first angle stdev: 44.327843

second angle mean: 140.20436

second angle stdev: 16.913067

89.22 87.78

146.13 142.76

first angle mean: 72.44406

first angle stdev: 44.241116

second angle mean: 140.23141

second angle stdev: 16.879137

92.15 91.21

152.33 149.84

first angle mean: 72.53364

first angle stdev: 44.16035

second angle mean: 140.28642

second angle stdev: 16.860384

robot count: 4

94.69 92.01

147.36 143.9

first angle mean: 72.633896

first angle stdev: 44.08541

second angle mean: 140.31842

second angle stdev: 16.828894

97.72 94.78

140.16 135.66

first angle mean: 72.746895

first angle stdev: 44.018074

second angle mean: 140.3177

second angle stdev: 16.79095

104.79 102.56

136.55 136.03

first angle mean: 72.89059

first angle stdev: 43.97142

second angle mean: 140.30081

second angle stdev: 16.755152

111.26 109.54

134.76 136.97

first angle mean: 73.061874

first angle stdev: 43.947666

second angle mean: 140.27608

second angle stdev: 16.72179

116.76 116.9

136.17 138.67

first angle mean: 73.256096

first angle stdev: 43.94613

second angle mean: 140.25783

second angle stdev: 16.686825

119.63 121.26

137.13 140.66

first angle mean: 73.46128

first angle stdev: 43.956688

second angle mean: 140.24399

second angle stdev: 16.651161

122.95 123.68

137.1 140.43

first angle mean: 73.67929

first angle stdev: 43.982044

second angle mean: 140.23013

second angle stdev: 16.615747

125.84 125.14

136.68 139.08

first angle mean: 73.908066

first angle stdev: 44.020638

second angle mean: 140.21455

second angle stdev: 16.580929

counter:5

128.25 128.37

127.75 135.45

first angle mean: 74.14537

first angle stdev: 44.070324

second angle mean: 140.16013

second angle stdev: 16.565088

128.41 130.87

125.24 136.54

first angle mean: 74.3813

first angle stdev: 44.119118

second angle mean: 140.09526

second angle stdev: 16.558163

129.38 133.02

125.85 136.72

first angle mean: 74.61939

first angle stdev: 44.17135

second angle mean: 140.03358

second angle stdev: 16.548733

130.76 134.94

129.84 139.08

first angle mean: 74.86138

first angle stdev: 44.22923

second angle mean: 139.98965

second angle stdev: 16.526525

129.97 135.85

131.58 141.79

first angle mean: 75.09789

first angle stdev: 44.281002

second angle mean: 139.95357

second angle stdev: 16.500183

128.38 137.36

128.93 144.28

first angle mean: 75.3256

first angle stdev: 44.322773

second angle mean: 139.90645

second angle stdev: 16.480585

128.92 136.45

130.15 144.54

first angle mean: 75.55366

first angle stdev: 44.365746

second angle mean: 139.86494

second angle stdev: 16.45774

128.18 132.97

132.33 142.3

first angle mean: 75.77665

first angle stdev: 44.40343

second angle mean: 139.83301

second angle stdev: 16.430128

125.24 127.01

133.16 138.91

first angle mean: 75.98536

first angle stdev: 44.4255

second angle mean: 139.80486

second angle stdev: 16.401133

120.09 120.05

133.65 136.69

first angle mean: 76.17067

first angle stdev: 44.42377

second angle mean: 139.779

second angle stdev: 16.371483

115.11 115.81

133.56 137.54

first angle mean: 76.3336

first angle stdev: 44.401936

second angle mean: 139.75298

second angle stdev: 16.342127

109.02 110.48

132.57 140.04

first angle mean: 76.469795

first angle stdev: 44.35933

second angle mean: 139.72305

second angle stdev: 16.314608

103.63 107.5

132.07 139.34

first angle mean: 76.58248

first angle stdev: 44.30162

second angle mean: 139.6913

second angle stdev: 16.288157

98.09 99.95

135.37 139.28

first angle mean: 76.67136

first angle stdev: 44.231518

second angle mean: 139.67343

second angle stdev: 16.25683

91.95 88.84

139.2 135.9

first angle mean: 76.73424

first angle stdev: 44.151245

second angle mean: 139.67148

second angle stdev: 16.223375

87.25 79.72

144.05 130.47

first angle mean: 76.777336

first angle stdev: 44.0658

second angle mean: 139.68942

second angle stdev: 16.192513

80.8 69.88

149.46 127.18

first angle mean: 76.79375

first angle stdev: 43.97653

second angle mean: 139.72931

second angle stdev: 16.171434

63.87 59.42

134.52 113.42

first angle mean: 76.74122

first angle stdev: 43.894756

second angle mean: 139.70813

second angle stdev: 16.141937

59.48 59.05

119.92 116.58

first angle mean: 76.67134

first angle stdev: 43.81952

second angle mean: 139.628

second angle stdev: 16.15816

56.18 57.34

111.08 119.99

first angle mean: 76.58871

first angle stdev: 43.750362

second angle mean: 139.5129

second angle stdev: 16.226717

72.31 59.4

78.15 104.35

first angle mean: 76.57152

first angle stdev: 43.663258

second angle mean: 139.26648

second angle stdev: 16.652636

61.52 36.98

104.82 90.71

first angle mean: 76.51132

first angle stdev: 43.5862

second angle mean: 139.1287

second angle stdev: 16.760914

43.83 12.41

128.32 92.91

first angle mean: 76.38112

first angle stdev: 43.547977

second angle mean: 139.08563

second angle stdev: 16.741344

28.76 4.42

141.22 106.2

first angle mean: 76.19215

first angle stdev: 43.564484

second angle mean: 139.09409

second angle stdev: 16.708633

7.24 1.83

157.32 143.67

first angle mean: 75.91961

first angle stdev: 43.693027

second angle mean: 139.16614

second angle stdev: 16.714746

3.41 3.03

165.22 158.42

first angle mean: 75.63413

first angle stdev: 43.842705

second angle mean: 139.2687

second angle stdev: 16.761408

5.1 4.91

166.6 162.81

first angle mean: 75.35754

first angle stdev: 43.978157

second angle mean: 139.37589

second angle stdev: 16.815496

4.65 7.53

162.9 163.15

first angle mean: 75.08133

first angle stdev: 44.11322

second angle mean: 139.46777

second angle stdev: 16.84665

9.1 10.77

158.54 160.67

first angle mean: 74.82459

first angle stdev: 44.21853

second angle mean: 139.54198

second angle stdev: 16.855715

4.27 6.02

156.27 155.01

first angle mean: 74.551125

first angle stdev: 44.349964

second angle mean: 139.60683

second angle stdev: 16.855099

17.43 10.6

153.33 139.91

first angle mean: 74.33058

first angle stdev: 44.405792

second angle mean: 139.6598

second angle stdev: 16.844042

56.61 39.8

145.78 136.66

first angle mean: 74.26243

first angle stdev: 44.333885

second angle mean: 139.68335

second angle stdev: 16.815887

93.04 89.6

117.45 103.13

first angle mean: 74.334366

first angle stdev: 44.264076

second angle mean: 139.59814

second angle stdev: 16.839754

97.56 104.59

102.45 103.2

first angle mean: 74.42301

first angle stdev: 44.20273

second angle mean: 139.45638

second angle stdev: 16.962957

101.09 94.42

119.45 132.73

first angle mean: 74.524414

first angle stdev: 44.149128

second angle mean: 139.38031

second angle stdev: 16.975393

101.39 93.32

145.39 142.19

first angle mean: 74.626175

first angle stdev: 44.09633

second angle mean: 139.40308

second angle stdev: 16.947233

100.22 99.43

148.85 145.02

first angle mean: 74.72276

first angle stdev: 44.04101

second angle mean: 139.4387

second angle stdev: 16.925142

103.32 104.9

145.97 144.23

first angle mean: 74.83026

first angle stdev: 43.992977

second angle mean: 139.46326

second angle stdev: 16.898027

108.14 111.38

143.54 143.4

first angle mean: 74.95502

first angle stdev: 43.957634

second angle mean: 139.47853

second angle stdev: 16.86819

113.93 116.13

143.28 141.03

first angle mean: 75.10045

first angle stdev: 43.93985

second angle mean: 139.4927

second angle stdev: 16.838285

119.76 120.5

142.64 137.74

first angle mean: 75.266464

first angle stdev: 43.942234

second angle mean: 139.50441

second angle stdev: 16.80805

124.41 125.28

143.3 138.44

first angle mean: 75.44848

first angle stdev: 43.962257

second angle mean: 139.5185

second angle stdev: 16.778479

126.31robot count: 5

127.34

142.41 138.16

first angle mean: 75.63616

first angle stdev: 43.989304

second angle mean: 139.52914

second angle stdev: 16.748411

counter:6

134.4 136.73

135.52 138.82

first angle mean: 75.85221

first angle stdev: 44.052166

second angle mean: 139.51442

second angle stdev: 16.719357

132.37 136.4

131.63 136.7

first angle mean: 76.059235

first angle stdev: 44.103775

second angle mean: 139.48553

second angle stdev: 16.695503

132.55 135.54

131.25 135.52

first angle mean: 76.265396

first angle stdev: 44.154816

second angle mean: 139.45547

second angle stdev: 16.672407

132.99 135.82

132.96 135.05

first angle mean: 76.47168

first angle stdev: 44.20652

second angle mean: 139.43185

second angle stdev: 16.646658

133.87 133.91

135.94 134.87

first angle mean: 76.67964

first angle stdev: 44.260925

second angle mean: 139.41922

second angle stdev: 16.617798

131.04 130.75

137.27 137.82

first angle mean: 76.875885

first angle stdev: 44.30109

second angle mean: 139.41144

second angle stdev: 16.588276

129.03 127.32

141.75 141.66

first angle mean: 77.06349

first angle stdev: 44.331436

second angle mean: 139.41985

second angle stdev: 16.559006

124.52 121.72

145.69 144.24

first angle mean: 77.23359

first angle stdev: 44.342705

second angle mean: 139.44234

second angle stdev: 16.53355

116.95 114.0

145.59 143.67

first angle mean: 77.375435

first angle stdev: 44.326817

second angle mean: 139.46428

second angle stdev: 16.508072

111.1 109.38

146.73 144.98

first angle mean: 77.49544

first angle stdev: 44.293423

second angle mean: 139.49014

second angle stdev: 16.484352

104.12 103.18

148.19 147.24

first angle mean: 77.58986

first angle stdev: 44.243134

second angle mean: 139.521

second angle stdev: 16.463223

95.72 93.9

142.79 143.81

first angle mean: 77.65392

first angle stdev: 44.177998

second angle mean: 139.53255

second angle stdev: 16.435255

88.69 86.0

142.66 142.38

first angle mean: 77.69278

first angle stdev: 44.104996

second angle mean: 139.54356

second angle stdev: 16.40734

79.28 74.62

143.77 135.74

first angle mean: 77.69836

first angle stdev: 44.02765

second angle mean: 139.5584

second angle stdev: 16.380436

70.18 67.24

146.99 131.1

first angle mean: 77.672066

first angle stdev: 43.95285

second angle mean: 139.58438

second angle stdev: 16.357658

65.57 68.24

136.33 135.03

first angle mean: 77.6299

first angle stdev: 43.882008

second angle mean: 139.57303

second angle stdev: 16.330261

73.26 60.35

134.22 112.42

first angle mean: 77.614716

first angle stdev: 43.80651

second angle mean: 139.55444

second angle stdev: 16.304928

72.61 29.99

139.44 85.43

first angle mean: 77.5974

first angle stdev: 43.731644

second angle mean: 139.55405

second angle stdev: 16.276695

44.95 10.81

145.66 101.61

first angle mean: 77.484825

first angle stdev: 43.69811

second angle mean: 139.5751

second angle stdev: 16.252548

10.02 7.79

152.95 132.84

first angle mean: 77.25298

first angle stdev: 43.801254

second angle mean: 139.62108

second angle stdev: 16.243467

2.3 7.37

156.8 152.64

first angle mean: 76.99629

first angle stdev: 43.944885

second angle mean: 139.6799

second angle stdev: 16.246658

2.84 4.94

158.66 160.39

first angle mean: 76.7432

first angle stdev: 44.082497

second angle mean: 139.74467

second angle stdev: 16.256638

6.33 11.5

160.15 162.84

first angle mean: 76.50371

first angle stdev: 44.198

second angle mean: 139.81409

second angle stdev: 16.272394

11.81 12.37

155.83 151.62

first angle mean: 76.2844

first angle stdev: 44.282963

second angle mean: 139.86838

second angle stdev: 16.27144

10.06 9.35

155.11 149.9

first angle mean: 76.06067

first angle stdev: 44.374794

second angle mean: 139.91988

second angle stdev: 16.26799

15.44 8.09

150.24 134.89

first angle mean: 75.85656

first angle stdev: 44.43899

second angle mean: 139.95462

second angle stdev: 16.251581

30.27 18.51

145.75 121.15

first angle mean: 75.70359

first angle stdev: 44.442627

second angle mean: 139.97408

second angle stdev: 16.22775

66.45 54.48

128.24 106.92

first angle mean: 75.67264

first angle stdev: 44.371464

second angle mean: 139.93481

second angle stdev: 16.21475

99.09 92.43

109.83 88.45

first angle mean: 75.750694

first angle stdev: 44.31801

second angle mean: 139.83447

second angle stdev: 16.280437

104.19 97.25

114.02 101.92

first angle mean: 75.84518

first angle stdev: 44.274582

second angle mean: 139.7487

second angle stdev: 16.32111

103.49 96.27

132.53 125.58

first angle mean: 75.93672

first angle stdev: 44.22974

second angle mean: 139.72481

second angle stdev: 16.299341

104.38 95.3

147.6 138.34

first angle mean: 76.030594

first angle stdev: 44.186817

second angle mean: 139.7508

second angle stdev: 16.27869

102.44 95.59

151.37 140.77

first angle mean: 76.11747

first angle stdev: 44.13999

second angle mean: 139.78902

second angle stdev: 16.265507

102.65 98.62

147.11 135.78

first angle mean: 76.20446

first angle stdev: 44.093666

second angle mean: 139.81302

second angle stdev: 16.244213

104.42 102.42

142.9 134.13

first angle mean: 76.29667

first angle stdev: 44.051003

second angle mean: 139.82309

second angle stdev: 16.218605

107.85 107.5

137.16 133.46

first angle mean: 76.39945

first angle stdev: 44.015938

second angle mean: 139.81442

second angle stdev: 16.192879

112.48 113.51

131.69 132.86

first angle mean: 76.51659

first angle stdev: 43.992332

second angle mean: 139.78806

second angle stdev: 16.173176

117.32 118.05

129.51 132.39

first angle mean: 76.64864

first angle stdev: 43.98219

second angle mean: 139.75478

second angle stdev: 16.157534

122.31 123.27

125.91 132.54

first angle mean: 76.79594

first angle stdev: 43.98746

second angle mean: 139.71013

second angle stdev: 16.150543

126.57 126.56

125.69 130.58

first angle mean: 76.955986

first angle stdev: 44.006992

second angle mean: 139.66504

second angle stdev: 16.14408

counter:7

127.24 131.85

117.95 128.24

first angle mean: 77.11715

first angle stdev: 44.028248

second angle mean: 139.59544

second angle stdev: 16.164854

127.97 131.21

119.3 126.97

first angle mean: 77.27962

first angle stdev: 44.051434

second angle mean: 139.5306

second angle stdev: 16.1796

122.79 130.65

119.52 126.84

first angle mean: 77.42455

first angle stdev: 44.05592

second angle mean: 139.46687

second angle stdev: 16.193113

120.31 130.11

117.86 128.12

first angle mean: 77.5607

first angle stdev: 44.052044

second angle mean: 139.39827

second angle stdev: 16.213015

122.11 128.03

119.93 129.13

first angle mean: 77.701675

first angle stdev: 44.053402

second angle mean: 139.33667

second angle stdev: 16.224232

robot count: 6122.09

126.32

122.6 130.42

first angle mean: 77.841705

first angle stdev: 44.05424

second angle mean: 139.28386

second angle stdev: 16.225786

120.74 123.39

126.31 130.97

first angle mean: 77.97661

first angle stdev: 44.05044

second angle mean: 139.24307

second angle stdev: 16.216532

119.01 119.92

128.73 132.28

first angle mean: 78.10524

first angle stdev: 44.04112

second angle mean: 139.21011

second angle stdev: 16.201756

115.88 116.57

130.07 133.69

first angle mean: 78.22328

first angle stdev: 44.02277

second angle mean: 139.18156

second angle stdev: 16.184464

113.23 113.27

132.75 136.74

first angle mean: 78.33234

first angle stdev: 43.997417

second angle mean: 139.16153

second angle stdev: 16.16321

108.21 109.16

132.3 138.89

first angle mean: 78.425125

first angle stdev: 43.960487

second angle mean: 139.14021

second angle stdev: 16.142607

101.21 102.81

132.18 141.71

first angle mean: 78.495674

first angle stdev: 43.910633

second angle mean: 139.11867

second angle stdev: 16.122236

95.03 96.49

131.96 141.47

first angle mean: 78.5467

first angle stdev: 43.85241

second angle mean: 139.09657

second angle stdev: 16.102234

90.2 91.55

130.54 142.16

first angle mean: 78.58256

first angle stdev: 43.78965

second angle mean: 139.07024

second angle stdev: 16.084425

84.19 79.98

132.55 135.86

first angle mean: 78.599754

first angle stdev: 43.723534

second angle mean: 139.05025

second angle stdev: 16.063784

78.47 67.87

117.78 115.64

first angle mean: 78.59936

first angle stdev: 43.65663

second angle mean: 138.98518

second angle stdev: 16.082144

74.04 61.86

108.68 102.68

first angle mean: 78.585464

first angle stdev: 43.590755

second angle mean: 138.8928

second angle stdev: 16.144297

66.6 52.18

96.83 87.05

first angle mean: 78.54903

first angle stdev: 43.529457

second angle mean: 138.76495

second angle stdev: 16.285192

61.27 41.47

92.16 74.29

first angle mean: 78.496666

first angle stdev: 43.47383

second angle mean: 138.62372

second angle stdev: 16.461037

46.57 24.4

104.45 75.37

first angle mean: 78.400215

first angle stdev: 43.44346

second angle mean: 138.5205

second angle stdev: 16.542814

34.64 10.97

120.72 93.28

first angle mean: 78.26841

first angle stdev: 43.444218

second angle mean: 138.46687

second angle stdev: 16.54666

16.37 3.53

126.81 119.75

first angle mean: 78.08253

first angle stdev: 43.510956

second angle mean: 138.43187

second angle stdev: 16.534103

15.08 14.04

134.69 144.25

first angle mean: 77.89389

first angle stdev: 43.58192

second angle mean: 138.42065

second angle stdev: 16.5106

11.86 11.11

147.11 156.91

first angle mean: 77.696785

first angle stdev: 43.665676

second angle mean: 138.4466

second angle stdev: 16.49275

6.57 5.84

154.79 160.37

first angle mean: 77.48509

first angle stdev: 43.77246

second angle mean: 138.49524

second angle stdev: 16.492237

9.37 11.83

157.53 160.9

first angle mean: 77.28297

first angle stdev: 43.864216

second angle mean: 138.55173

second angle stdev: 16.500265

10.86 13.55

154.28 158.98

first angle mean: 77.08645

first angle stdev: 43.9476

second angle mean: 138.59825

second angle stdev: 16.497969

15.11 13.95

153.31 154.41

first angle mean: 76.903625

first angle stdev: 44.011265

second angle mean: 138.64165

second angle stdev: 16.492926

11.2 7.22

155.0 148.83

first angle mean: 76.71039

first angle stdev: 44.090294

second angle mean: 138.68976

second angle stdev: 16.492462

12.72 6.17

151.17 137.2

first angle mean: 76.52273

first angle stdev: 44.161366

second angle mean: 138.72635

second angle stdev: 16.482084

36.75 24.4

149.87 129.26

first angle mean: 76.40643

first angle stdev: 44.149017

second angle mean: 138.75894

second angle stdev: 16.468964

74.67 67.94

135.41 126.42

first angle mean: 76.40137

first angle stdev: 44.084713

second angle mean: 138.74918

second angle stdev: 16.44593

86.54 86.33

114.31 121.47

first angle mean: 76.43085

first angle stdev: 44.02397

second angle mean: 138.67815

second angle stdev: 16.474636

94.71 86.98

121.56 119.44

first angle mean: 76.483826

first angle stdev: 43.971107

second angle mean: 138.62852

second angle stdev: 16.476461

94.93 84.41

141.95 129.23

first angle mean: 76.53714

first angle stdev: 43.918682

second angle mean: 138.63812

second angle stdev: 16.453602

99.9 92.75

148.73 141.52

first angle mean: 76.60447

first angle stdev: 43.873234

second angle mean: 138.6672

second angle stdev: 16.43878

101.76 98.54

145.55 142.37

first angle mean: 76.67675

first angle stdev: 43.83084

second angle mean: 138.68698

second angle stdev: 16.419277

103.25 104.2

138.16 142.41

first angle mean: 76.75289

first angle stdev: 43.791042

second angle mean: 138.68547

second angle stdev: 16.395761

106.51 108.85

132.58 140.36

first angle mean: 76.83791

first angle stdev: 43.757275

second angle mean: 138.66803

second angle stdev: 16.375566

108.96 111.16

131.64 138.19

first angle mean: 76.92943

first angle stdev: 43.728424

second angle mean: 138.64801

second angle stdev: 16.356512

114.84 116.86

133.76 137.91

first angle mean: 77.03713

first angle stdev: 43.712864

second angle mean: 138.63411

second angle stdev: 16.335335

119.96 121.33

134.82 136.15

first angle mean: 77.15872

first angle stdev: 43.710476

second angle mean: 138.6233

second angle stdev: 16.313438

124.18 124.99

133.21 134.7

first angle mean: 77.29156

first angle stdev: 43.719982

second angle mean: 138.60802

second angle stdev: 16.292915

126.18 127.03

130.69 134.75

first angle mean: 77.42927

first angle stdev: 43.73518

second angle mean: 138.58572

second angle stdev: 16.275362

counter:8

TRAINING: Exercise raise\_arms\_above\_head\_ball done

robot count: 7

C:\Users\yaels\יעל פרוייקט גמר\zedcheck\Excel.py:287: UserWarning: Starting a Matplotlib GUI outside of the main thread will likely fail.

plt.plot(plot\_data['x'], plot\_data['y'])

Directory created or already exists: Patients/1111/Graphs/raise\_arms\_above\_head\_ball/28-06-2024 15-22-12

C:\Users\yaels\יעל פרוייקט גמר\zedcheck\Excel.py:287: UserWarning: Starting a Matplotlib GUI outside of the main thread will likely fail.

plt.plot(plot\_data['x'], plot\_data['y'])

Directory created or already exists: Patients/1111/Graphs/raise\_arms\_above\_head\_ball/28-06-2024 15-22-12

ROBOT: Exercise raise\_arms\_above\_head\_ball done

C:\Users\yaels\יעל פרוייקט גמר\zedcheck\Excel.py:287: UserWarning: Starting a Matplotlib GUI outside of the main thread will likely fail.

plt.plot(plot\_data['x'], plot\_data['y'])

Directory created or already exists: Patients/1111/Graphs/raise\_arms\_above\_head\_ball/28-06-2024 15-22-12

C:\Users\yaels\יעל פרוייקט גמר\zedcheck\Excel.py:287: UserWarning: Starting a Matplotlib GUI outside of the main thread will likely fail.

plt.plot(plot\_data['x'], plot\_data['y'])

Directory created or already exists: Patients/1111/Graphs/raise\_arms\_above\_head\_ball/28-06-2024 15-22-12

CAMERA: Exercise raise\_arms\_above\_head\_ball done