



Programming



Subgroup



We make the bot listen.



Go bot, go

Autonomous

Where the bot drives itself

Turns and timing.

Sensor based is our goal.

Drive mode

Where we tell the bot where to go and what to do with the signals sent to it.

Simulation is our goal, so we can test the code before we have a working bot.



How bot, how?

Use Java in Eclipse (up through 2018) and VS Code (2018+)

Use prebuilt application programming interfaces (APIs). WPILib.

Write glue code

Write custom Java code.

All has to be done by six weeks after season kickoff.

```
var IntoDoc = open ( File ("D:\IntoMacro.psd"));

app.preferences.rulerUnits = Units.PIXELS;
w = FromDoc.width.value;
h = FromDoc.height.value;
ratio = h/w;
app.activeDocument = FromDoc;
activeDocument.activeLayer = activeDocument.layers[0];

var shapeRef =
[ [ Math.floor ((w-1920)/2), Math.floor ((h-1080)/2) ],
  [ Math.floor ((w-1920)/2)+1920, Math.floor ((h-1080)/2) ],
  [ Math.floor ((w-1920)/2)+1920, Math.floor ((h-1080)/2)+1080 ],
  [ Math.floor ((w-1920)/2), Math.floor ((h-1080)/2)+1080 ] ];

app.activeDocument.selection.select ( shapeRef,SelectionType.REPLACE );
app.activeDocument.selection.copy ();
app.activeDocument = IntoDoc;
activeDocument.activeLayer = activeDocument.layers[0];
IntoDoc.paste ();

while (1) {
  if ( (w < wmin) || (h < hmin) ) break;
  app.activeDocument = FromDoc;
  activeDocument.activeLayer = activeDocument.layers[0];

  app.activeDocument.activeLayer.copy ();
  app.activeDocument = betweenDoc;
  betweenDoc.paste ();
  w1 = w;
  h1 = h;
  w = w * perc / 100;
  h = w * ratio;
}
```

Research

Research new systems to make us more competitive.

Monitor Internet groups to see what the trends are leaning towards, and participate in its development.

<https://www.chiefdelphi.com>

Publish

Work with the media team to post the code that is developed off season.

Any questions?

