1. Generate Multiple Maps.
2. Rewrite PERL script to produce correct output
   1. Compare initial and final program
   2. Compare initial and final program outputs.
3. Setup Block Ram to contain multiple maps.
   1. Dual Port Block RAM named “world\_map”
      1. Memory Organization is 16,384 x 2 = 32Kb Capacity.
      2. Port A always enabled.
      3. Port B always enabled.
   2. How to generate multiple maps within this block ram?
      1. Create multiple Block Rams and rename them.
         1. World Map inputs:
            1. .clka < clk\_out2 ( clk\_wiz\_0, the clock generator )
            2. .clkb < clk\_out2 ( clk\_wiz\_0, the clock generator )
            3. .addra < worldmap\_addr ( rojobot31 )
            4. .addrb < vid\_addr ( scale )
         2. World Map outputs:
            1. .douta > worldmap\_data ( rojobot31 )
            2. .doutb > world\_pixel ( colorizer )
      2. Include hardware control
         1. Verilog will read the bot\_inforeg to get status of both bots.
         2. When both bots have arrived at the finish line, then the hardware will increment a counter to select the next map.
      3. ~~Include program control registers?~~
4. Create Hardware Mechanism for switching between maps.