1. Generate Multiple Maps.
2. 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?~~
3. Create Hardware Mechanism for switching between maps.