

Robot X Games

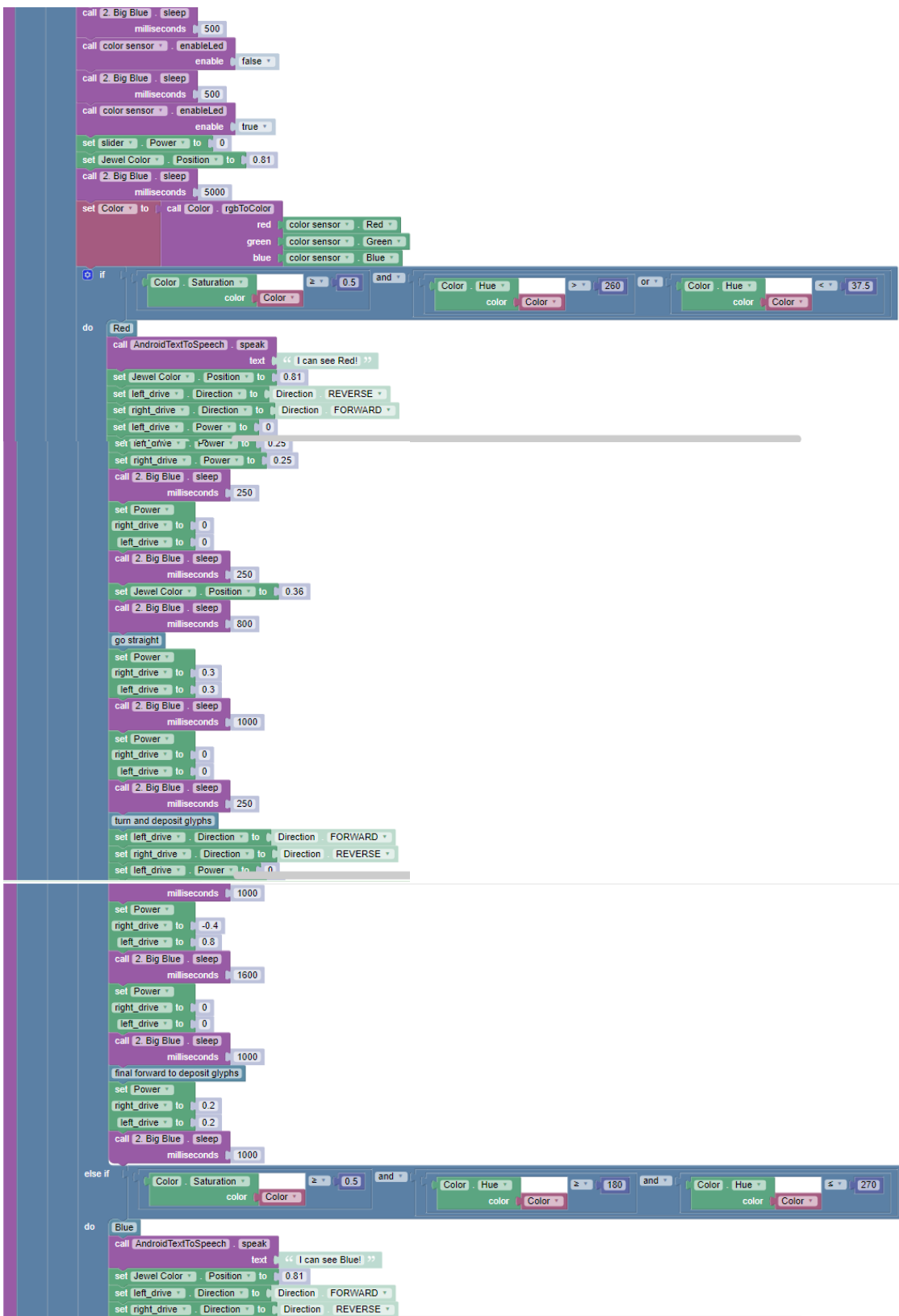
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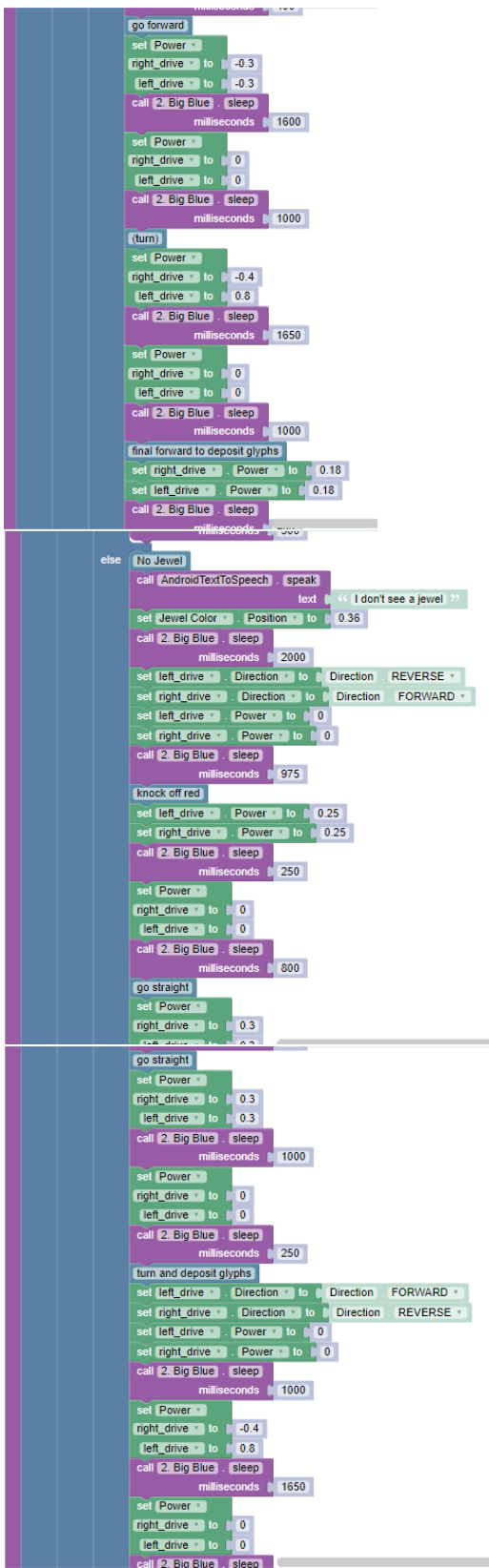
We have programs for 4 autonomous starting positions: small red, big red, small blue, big blue, and a driver-controlled program called Tele-Op. The Blocks programming does not have a print function, so we copied and pasted our code into a Word document the best we could.

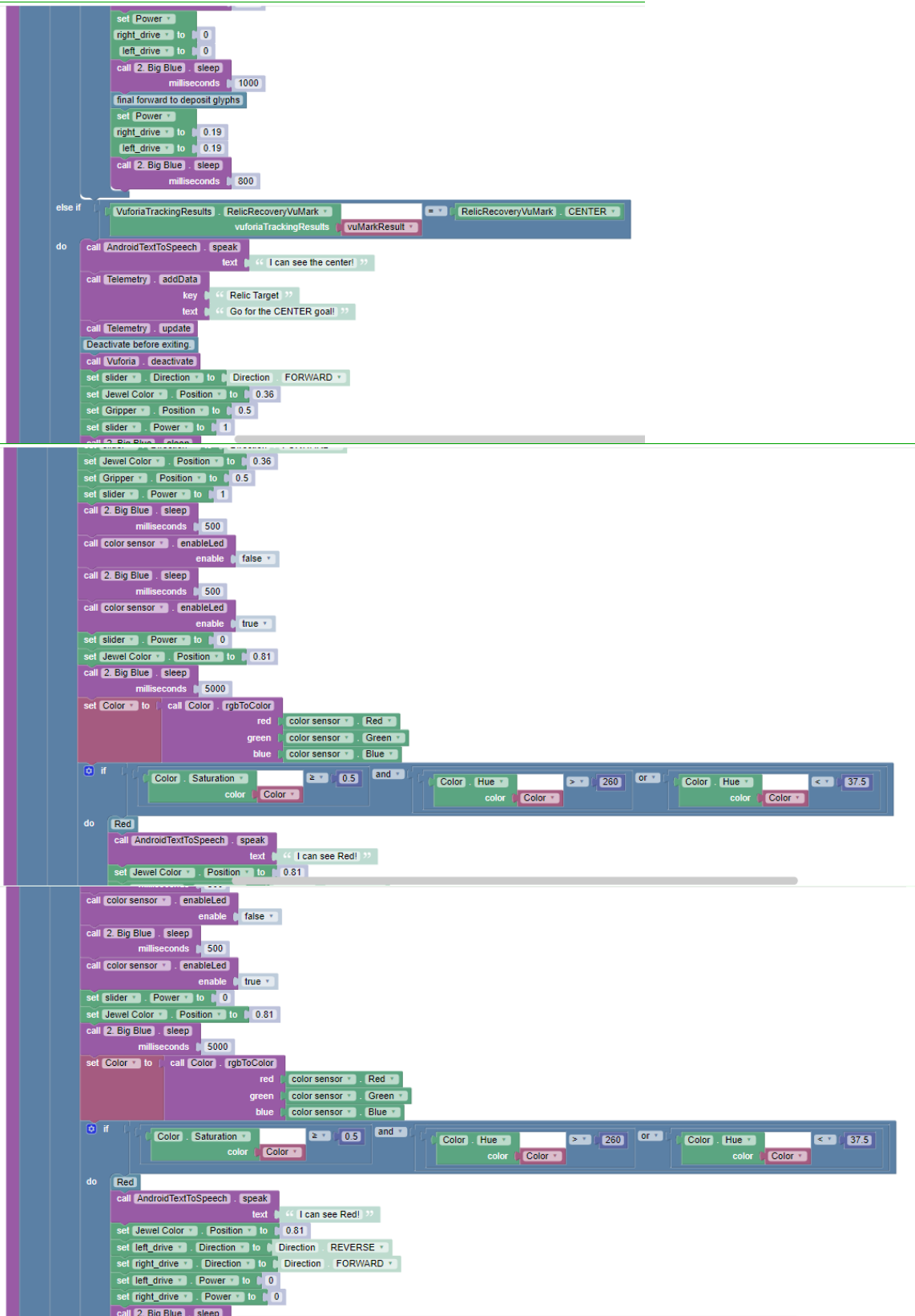
2. Big Blue

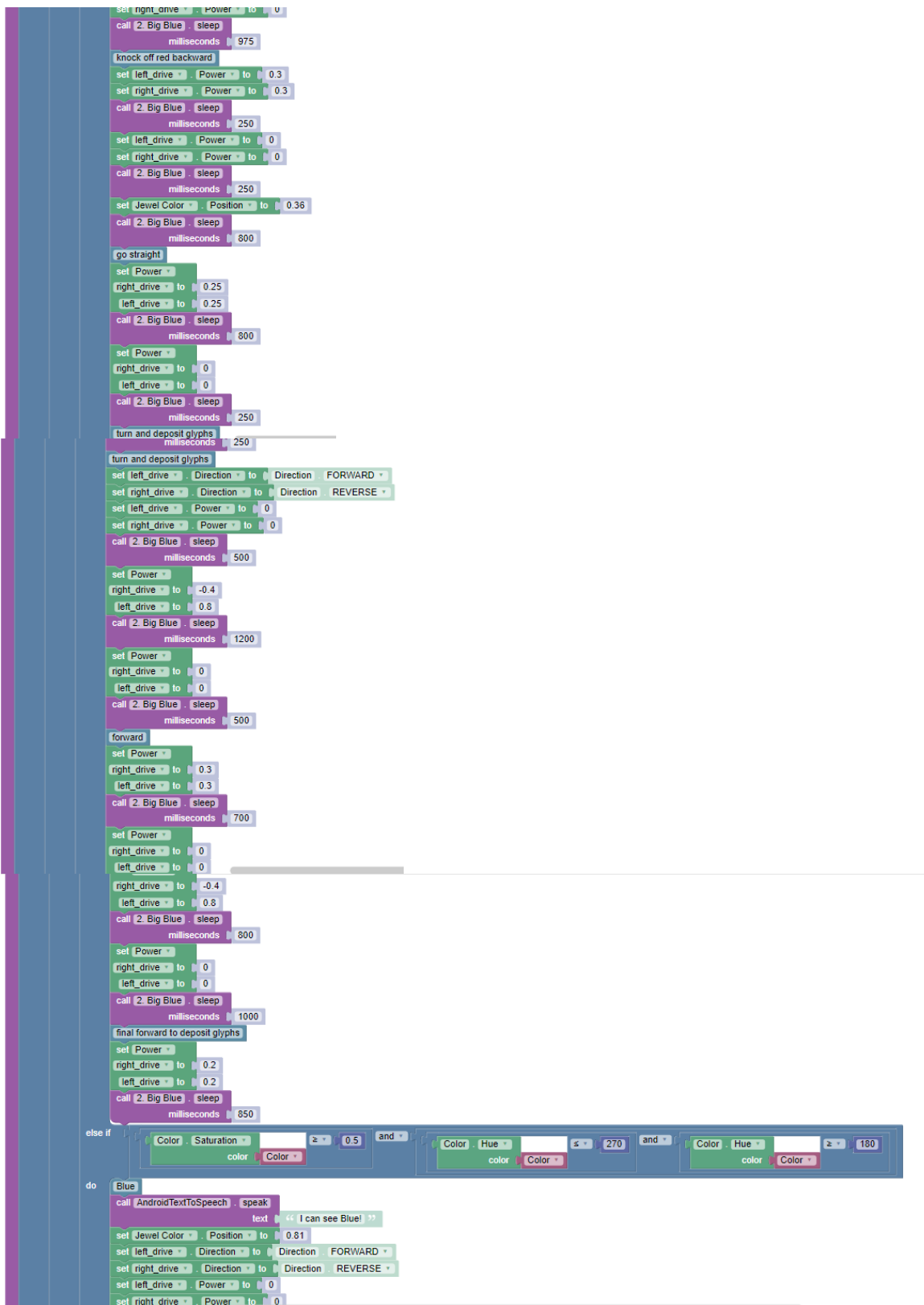
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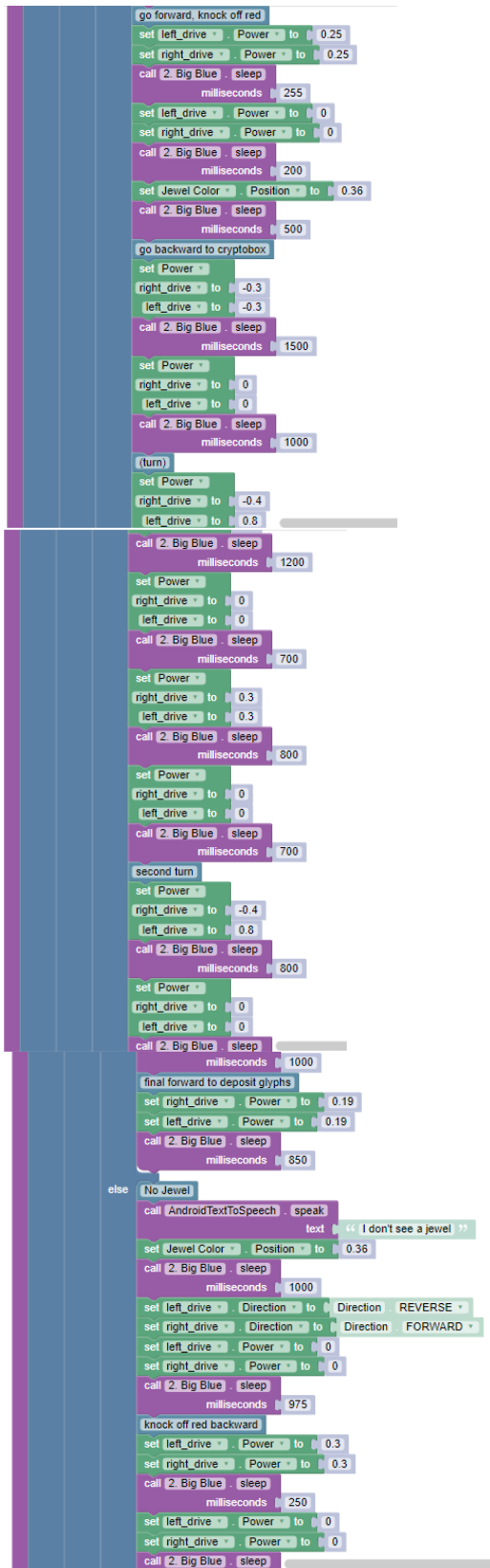
runOpMode
  Initialize Vuforia (use default settings)
    call Vuforia . initialize
      cameraDirection CameraDirection BACK
      useExtendedTracking true
      enableCameraMonitoring true
      cameraMonitorFeedback CameraMonitorFeedback AXES
    phoneLocationOnRobot translation dx 0
    phoneLocationOnRobot translation dy 0
    phoneLocationOnRobot translation dz 0
    phoneLocationOnRobot rotation x 0
    phoneLocationOnRobot rotation y 0
    phoneLocationOnRobot rotation z 0
    useCompetitionFieldTargetLocations true
  Prompt user to push start button
  call AndroidTextToSpeech . initialize
  call Telemetry . update
  call AndroidTextToSpeech . setLanguage
    languageCode en
    countryCode US
  call Telemetry . update
  Wait until user pushes start button
  call 2. Big Blue . waitForStart
  Activate Vuforia software
  call Vuforia . activate
  Get the tracking results
  while (true)
    milliseconds 1000
    set vuMarkResult to call Vuforia . track
      trackableName TrackableName RELIC
    call 2. Big Blue . sleep
      milliseconds 1000
    Is a VuMark visible?
    if VuforiaTrackingResults . isVisible
      vuMarkResult vuMarkResult
    do
      Yes, we see one
      What type of Relic VuMark is it?
      call Telemetry . addData
        key VuMark
        text A VuMark is visible.
      call Telemetry . update
      if VuforiaTrackingResults . RelicRecoveryVuMark = RelicRecoveryVuMark LEFT
        do
          call AndroidTextToSpeech . speak
            text I can see the left!
          call Telemetry . addData
            key Relic Target
            text Go for the LEFT goal!
          call Telemetry . update
          Deactivate before exiting
          call Vuforia . deactivate
          set slider . Direction to Direction FORWARD
          set Jewel Color . Position to n 3
  
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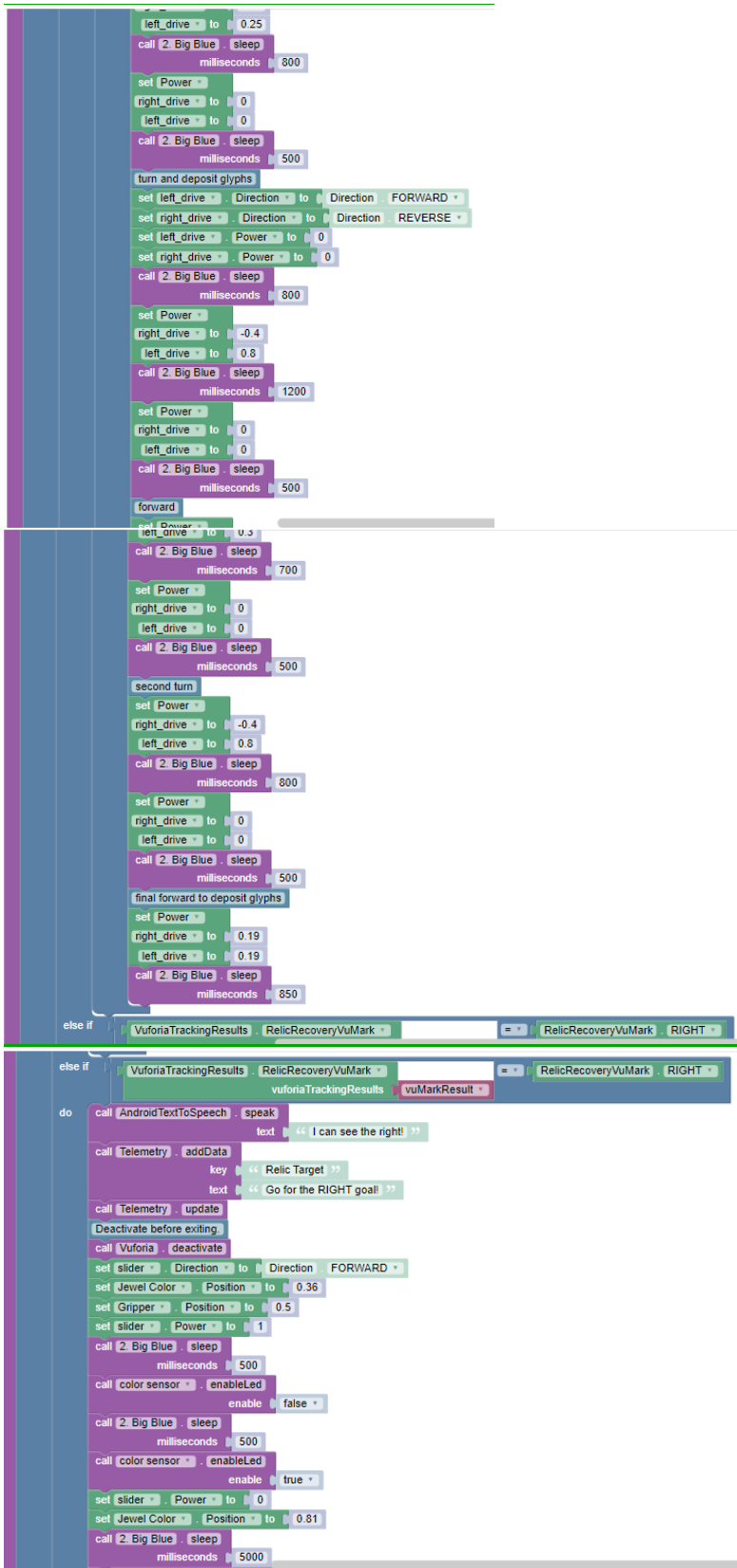


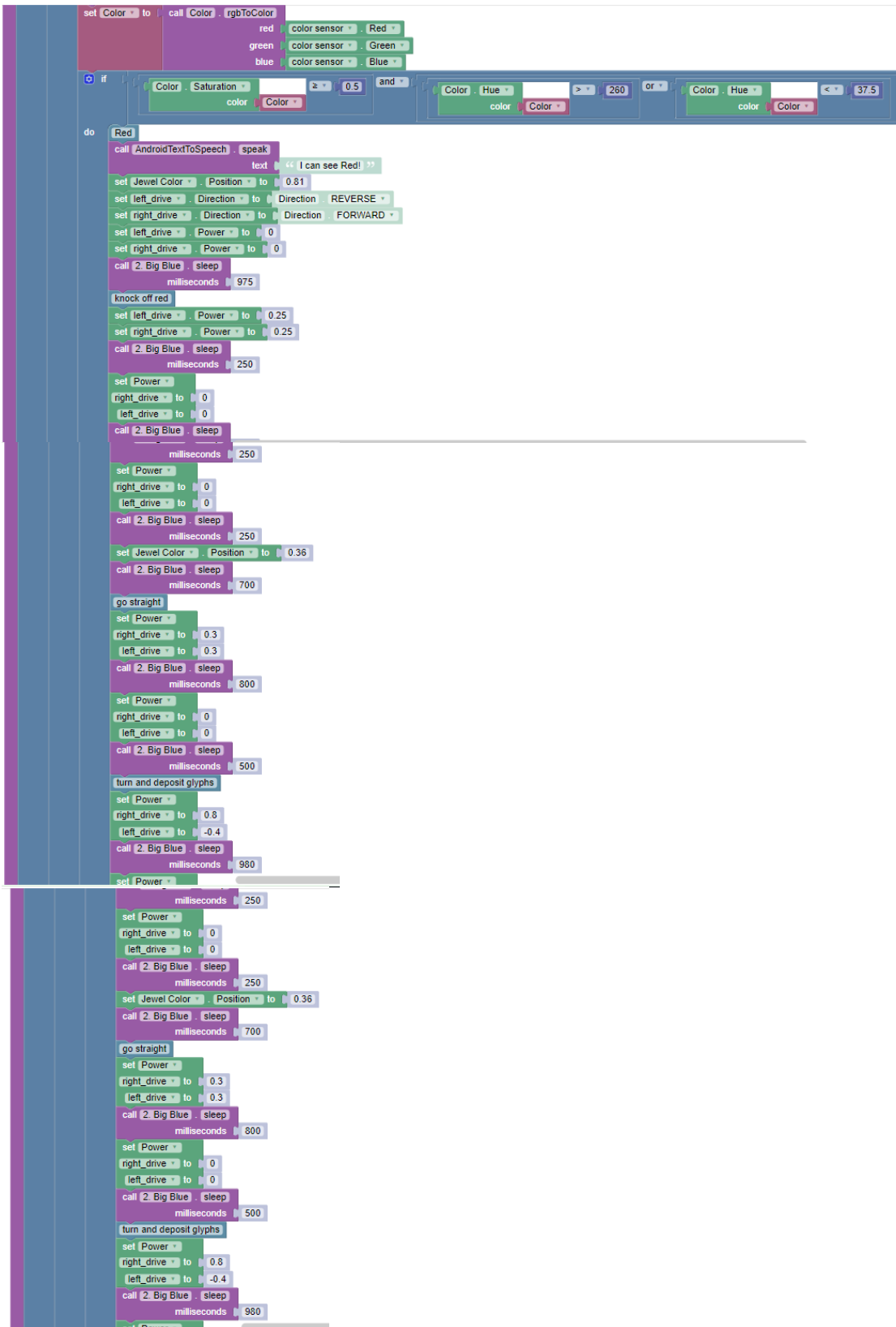


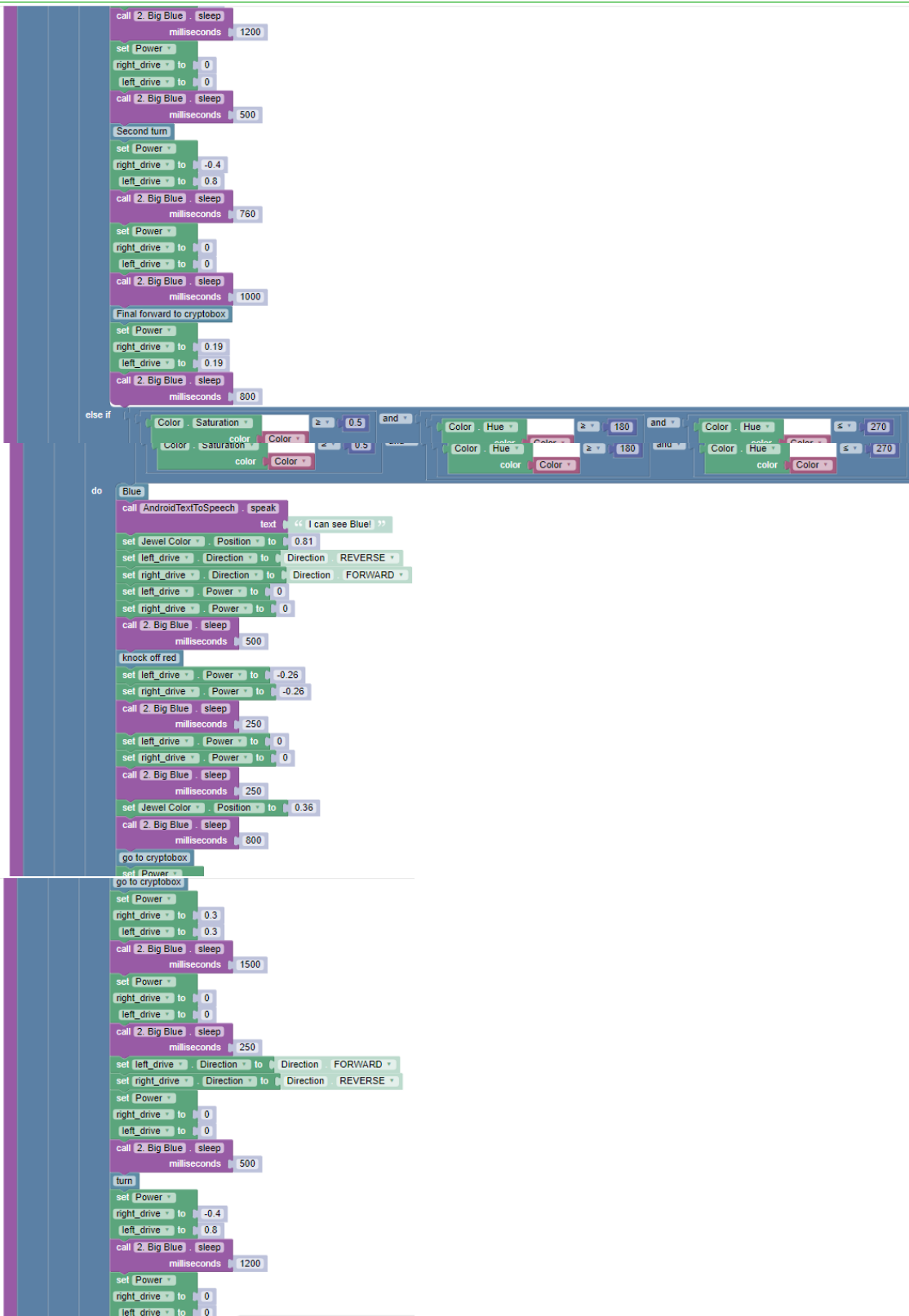


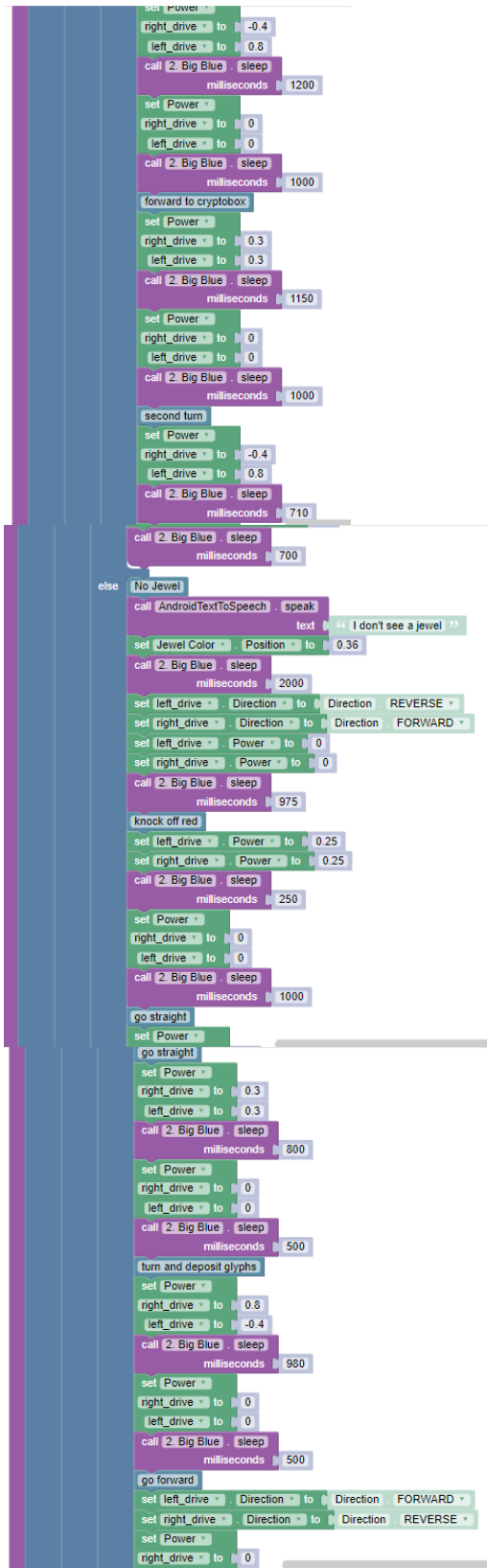


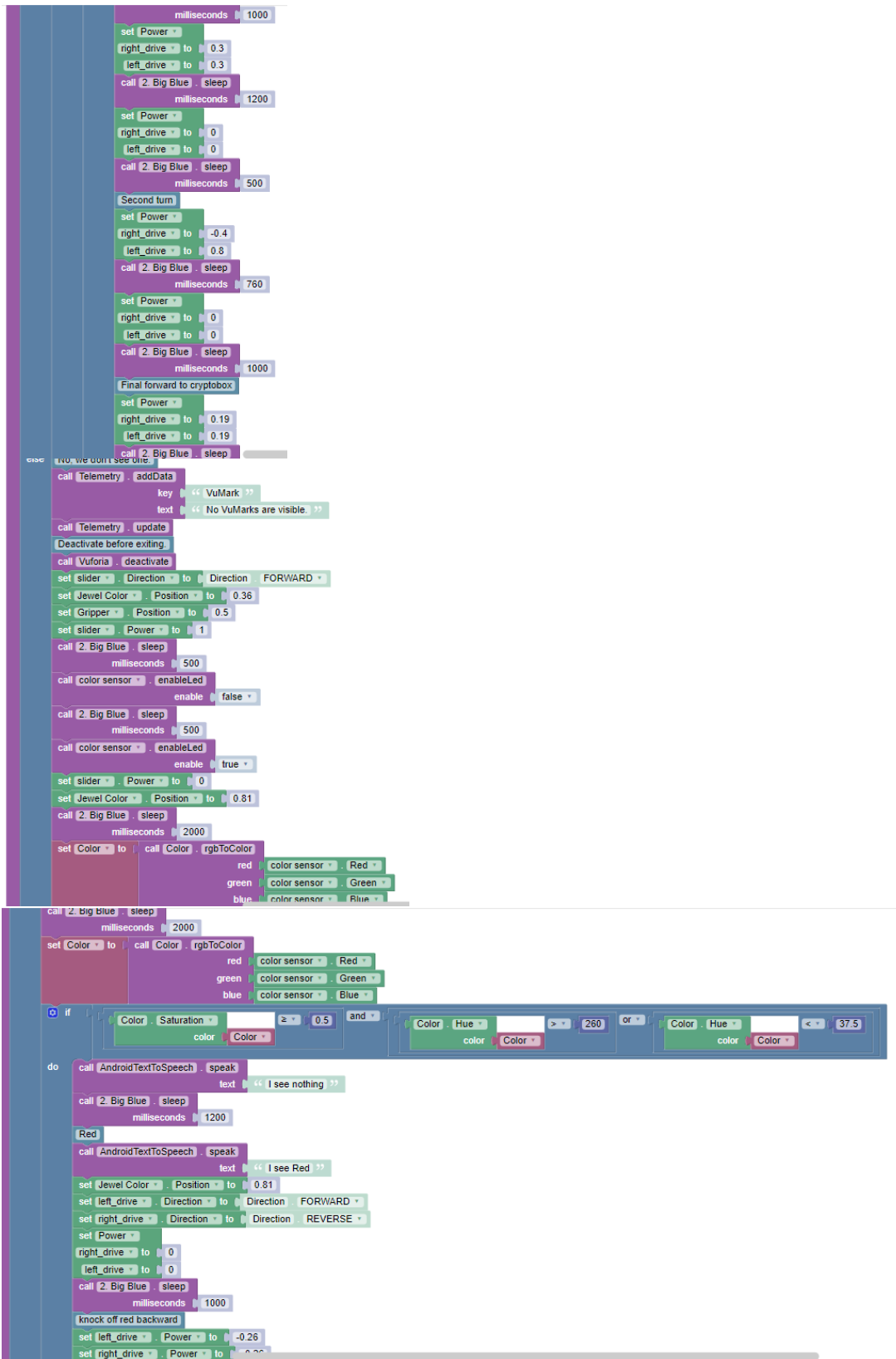


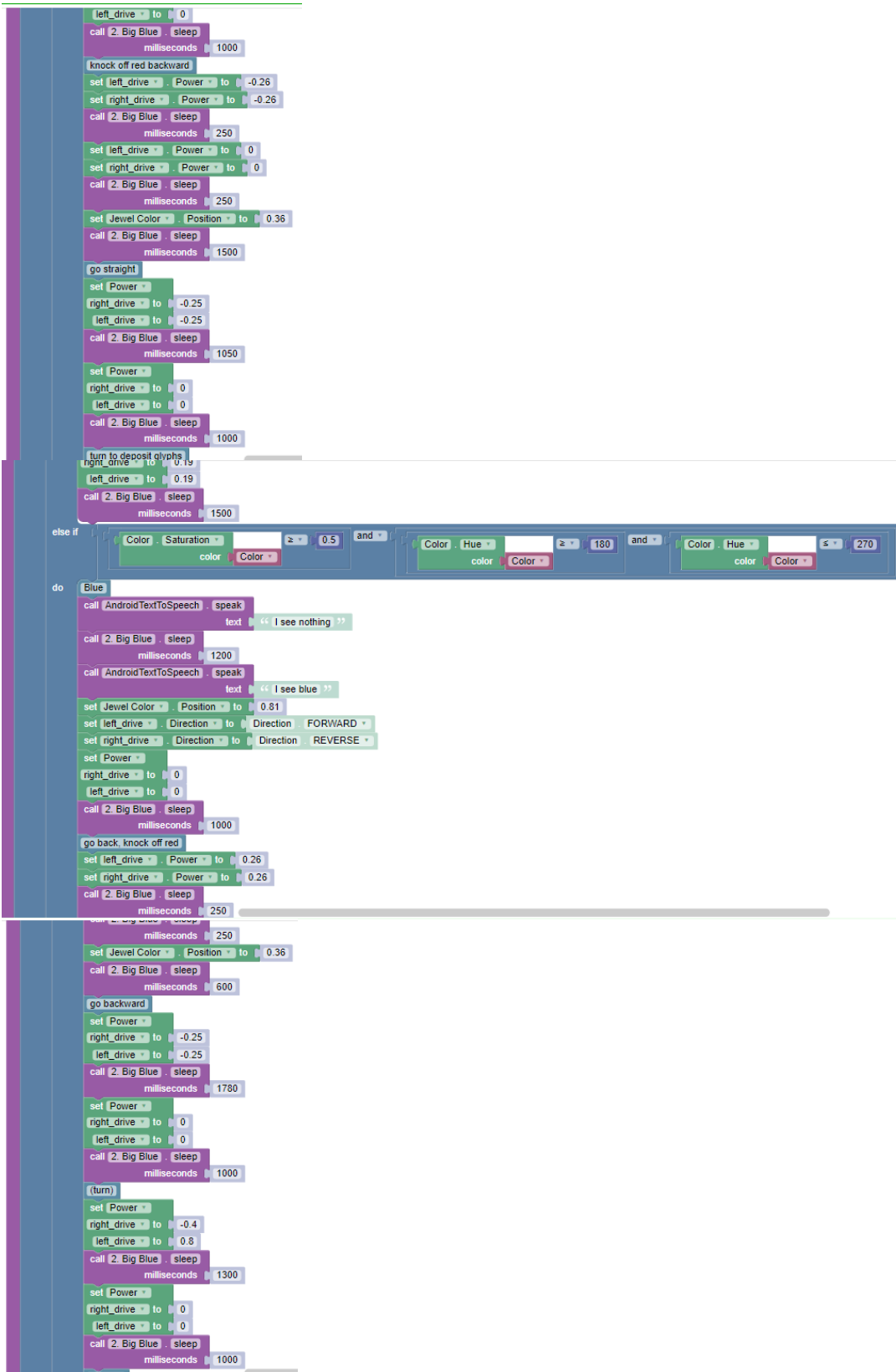


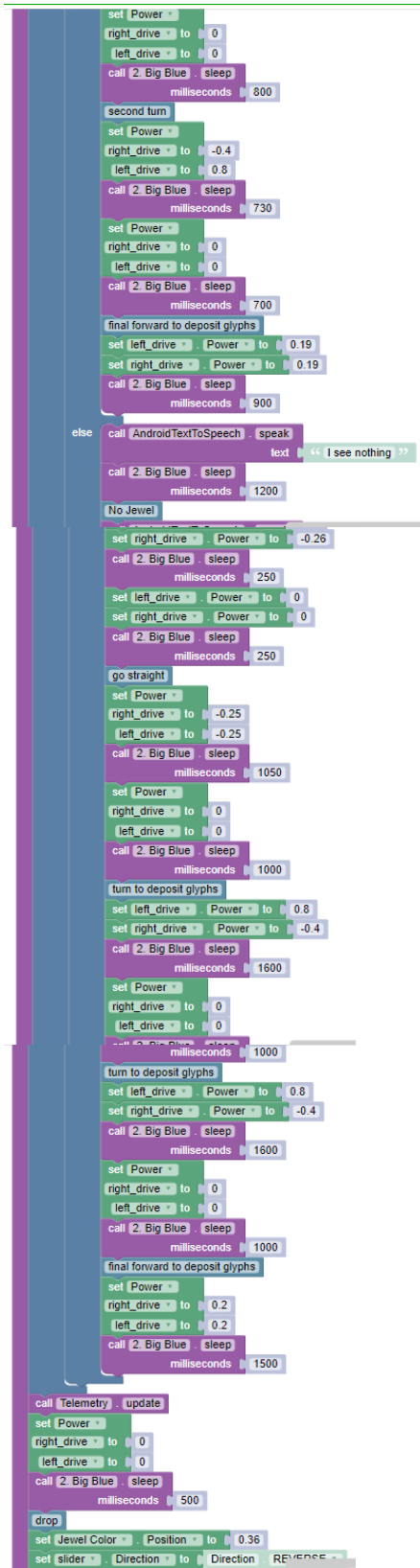












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set (slider . Power to 1
call (2 Big Blue . sleep
    milliseconds 1000
set (slider . Power to 0
call (2 Big Blue . sleep
    milliseconds 500
set (Gripper . Position to 0.16
set (slider . Direction to Direction FORWARD
set (slider . Power to 1
call (2 Big Blue . sleep
    milliseconds 500
set (slider . Power to 0
back up
set (left_drive . Direction to Direction REVERSE
set (right_drive . Direction to Direction FORWARD
set (left_drive . Power to 0
set (right_drive . Power to 0
call (2 Big Blue . sleep
    milliseconds 2000
set (left_drive . Power to 0.3
set (right_drive . Power to 0.3
call (2 Big Blue . sleep
    milliseconds 400
set (Power .
right_drive to 0
left_drive to 0
call (2 Rin Blue . sleep
call (2 Big Blue . sleep
    milliseconds 2000
set (left_drive . Power to 0.3
set (right_drive . Power to 0.3
call (2 Big Blue . sleep
    milliseconds 400
set (Power .
right_drive to 0
left_drive to 0
call (2 Big Blue . sleep
    milliseconds 500
repeat while | call (2 Big Blue . opModelsActive
do
    call (Telemetry . update
    call (2 Big Blue . sleep
        milliseconds 10

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