Control Award Content Sheet

Updated 9.9.2017

****Please turn in this sheet during your Judge Interview along with your Engineering Notebook****

Team # 6041	**Team Name:** Robot X Games

Autonomous objectives:

We have four different programs for each Balance:

For 85 points, our robot first scans the VuMark, then swings an arm down with a color sensor to read the Jewel, then moves to get the opponents' color off! Then the robot deposits the Glyph in the slot described by the VuMark!

Sensors used:

Color sensor and the camera on the front.

Key algorithms:

We altered the default VuForia program for all 4 starting positions, and had to program for each glyph position in the crypotobox to score according to the Key; we also programmed the color sensor to see the correct values and knock off the jewel. We used a Text To Voice command to know what the robot "sees" in testing.

Driver controlled enhancements:

We use a pulley powered by a DC motor and 2 servo motors to pick up 2 glyphs at a time.

Engineering notebook references:

Week 7, Week 11

Autonomous program diagrams:

See attached pages