

Instructions for Individual-Moving Range Control Chart

Data Collection

- We are going to collect data using the catapult
- Each team member will make 5 shots using the data collection form provided
- Plot the points as a run chart
- Construct ± 3 sigma limits

Steps in constructing chart

1. Collect the data.
2. Calculate \bar{x} (this becomes the centerline).
3. Calculate the moving range -- differences (ranges) between adjacent points.
4. Determine the median range.
5. Multiply the median range by 3.14.
6. $UCL = \bar{x} +$ result from step 5.
7. $LCL = \bar{x} -$ result from step 5.
8. Plot the data in time order and draw a solid centerline at \bar{x} .
9. Draw dashed lines to represent the edges of the highway (the control limits).

source: Brain Joiner, Fourth Generation Management

