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Product Summary Sheet

Instructions

In your engineering notebook or on this form, document each product available on the commercial or retail market related to the major project problem you have identified.

Website for Product (URL):

https://www.amazon.com/Mechanical-Technic-Building-Control-Educational/dp/B0FHQ3VPM6/ref=sr_1_12_sspa?crid=3BCNLY4NI0QXT&dib=eyJ2ljoIM SJ9.UtHo lmdZugb9eXggaZjXRvwC VJZKqHu61dppOsB8H265ALVqYPpvX5xC3se8Op k7KnT3yw-fYv 0Uw5VrEdW5K67iTZFSyK3Vs3mGPrnNfniMQ3E9oj4nkDPougImSUDYmdTKyNnfD YPESaBmfBGkwQratNsEyXtRIJsoFcVFQ8x2UoPplbvtBXkc2lvneuYRnX8e5j 6BhfWRfI yqr88K6EopnspdVvHWy3FRf8 jzVrIUaHcjl3bhEQdOW2C6d4UAOKtXfV4i2c58hVUE2Q MIF3Ezfa8egA3fZO8I-Q.xPaHvgtW0TrRQZpknCRego6aw23WEBu5p47FBanfomo&dib tag=se&keywords=stem+toys+for+ages+8-13&qid=1759551096&srefix=stem+toys+for+ages%2Caps%2C265&sr=8-12-spons&sp csd=d2lkZ2V0TmFtZT1zcF9tdGY&psc=1

Product Summary:

The Uncle Brick Mechanical Technic Arm Building Blocks Set is a STEM-focused construction kit with 784 pieces, including 4 motors, a lithium-ion battery box, and a remote control. Aimed at children ages 8–14 but also marketed for adults, the set enables users to build a robotic arm capable of nearly 360° rotation and gripping items up to 150 grams. It emphasizes realism, with flexible joints, power gears, and multiple control functions, making it suitable for both educational purposes and imaginative play. The finished model can be used daily with remote-control operation, allowing it to simulate scenarios like a space station or factory robotic arm. It has earned a 4.4-star rating and is praised for its challenging, rewarding assembly experience, durable design, and functionality. Dimensions are approximately 15.8 x 10.4 x 11.7 inches, with a weight of 3 pounds, positioning it as a more advanced and substantial STEM kit compared to typical children's robotic toys.

Product Critique:

Pros

- Complex and Educational: Provides a meaningful STEM challenge, promoting mechanical understanding and hands-on skills.
- High Functionality: Remote-controlled arm with rotation and claw movement enhances interactivity.

- **Durability and Design:** Strong build quality and smooth gear mechanics create fluid, precise motion.
- **Versatility:** Can be imagined as a space or factory robotic arm; suitable for both kids and adult enthusiasts.
- **Good Presentation:** Numbered bags and clear instructions aid the building process, making it manageable despite complexity.

Cons

- **Challenging Assembly:** May be too complex or time-consuming for younger users without guidance.
- **Grip Limitations:** Can only lift lightweight objects (up to ~150g), reducing practical play value.
- **Stability Issues:** The base may be unstable under lateral motion, according to reviews.
- **Outdated Charging Port:** Battery pack uses micro-USB rather than modern USB-C.
- **Price Point:** Higher cost compared to simpler STEM kits, potentially limiting accessibility.

Images/sketch of Product:

