Using meta-analysis determine what is the best base material for robotic prosthesis?

I believed because there would be machinery and moving parts it would be necessary to find a metal alloy to work as the base material.

Metal alloys were too heavy a material to be used as a body
Metal alloys limited the reparability of the prosthetic
Resin were first used for their light weight and easy of mold ability
The high price materials are used primarily for Body work and not structure
Most structural supports are a combination of materials
Polyethylene/Polypropylene mixtures are the most used base material
Depending on the prosthetist and their preferences the preferred base material changes

Metal alloys are not appropriate for robotic prosthetics base materials
- Melting Point
- Weight
Mixtures of Polyethylene/Polypropylene are the preferred base for most prosthetists
Depending on the type of prosthetic the preferred base material changes
Household robotic prosthetics are restricted due to the robotics aspect
Making household robotic prosthetics will require more study into different types of base material

<table>
<thead>
<tr>
<th>Material</th>
<th>Average price per pound</th>
<th>Rigidness</th>
<th>Durability</th>
<th>Flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylic</td>
<td>$125-130</td>
<td>High</td>
<td>Low</td>
<td>Average</td>
</tr>
<tr>
<td>Composite Carbon Fibers</td>
<td>$15*</td>
<td>Very High</td>
<td>High</td>
<td>Very Low</td>
</tr>
<tr>
<td>Ethyl-vinyl acetates (EVAs)</td>
<td>$1.07*</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>$120-146</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Polypropylene</td>
<td>$72-118</td>
<td>Very High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Subortholen (HMW-HDPE)</td>
<td>$62-85</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>


