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## Drip Irrigation System Design

By: Ahmad Alhathboor

In my drip irrigation system, I looked for an alternative to the very popular trend of using polyethylene and instead used vinyl, which might be a cheaper; therefore, more efficient route than the polyethylene route.

Materials required:

1. 3x 100', 1/4" Vinyl Brown Micro Tubing
2. 7x DIG 1/4" Barbed Tee
3. 1x 1/4" Barbed Elbow

The Vinyl Micro Tubing comes at 7.89\$ per 100'. So assuming we need a bit less than 300' per irrigation system. Total, this comes out to 23.67\$ per irrigation system on tubing.



*100', 1/4" Vinyl Brown Micro Tubing*

For 7 out of the 8 sublines, we can use the DIG 1/4" Barbed Tees to connect them with the main line. These tees come out to 0.12\$ per piece, so that totals to 0.84\$. For the last subline, we can use a 1/4" Barbed Elbow to connect it with the main line which cost 0.13\$ a piece. Both the Barbed Tees and the Barbed Elbows can be sold in bulk for cheaper, so their might be a few bucks saved here and their.



*DIG 1/4" Barbed Tee*

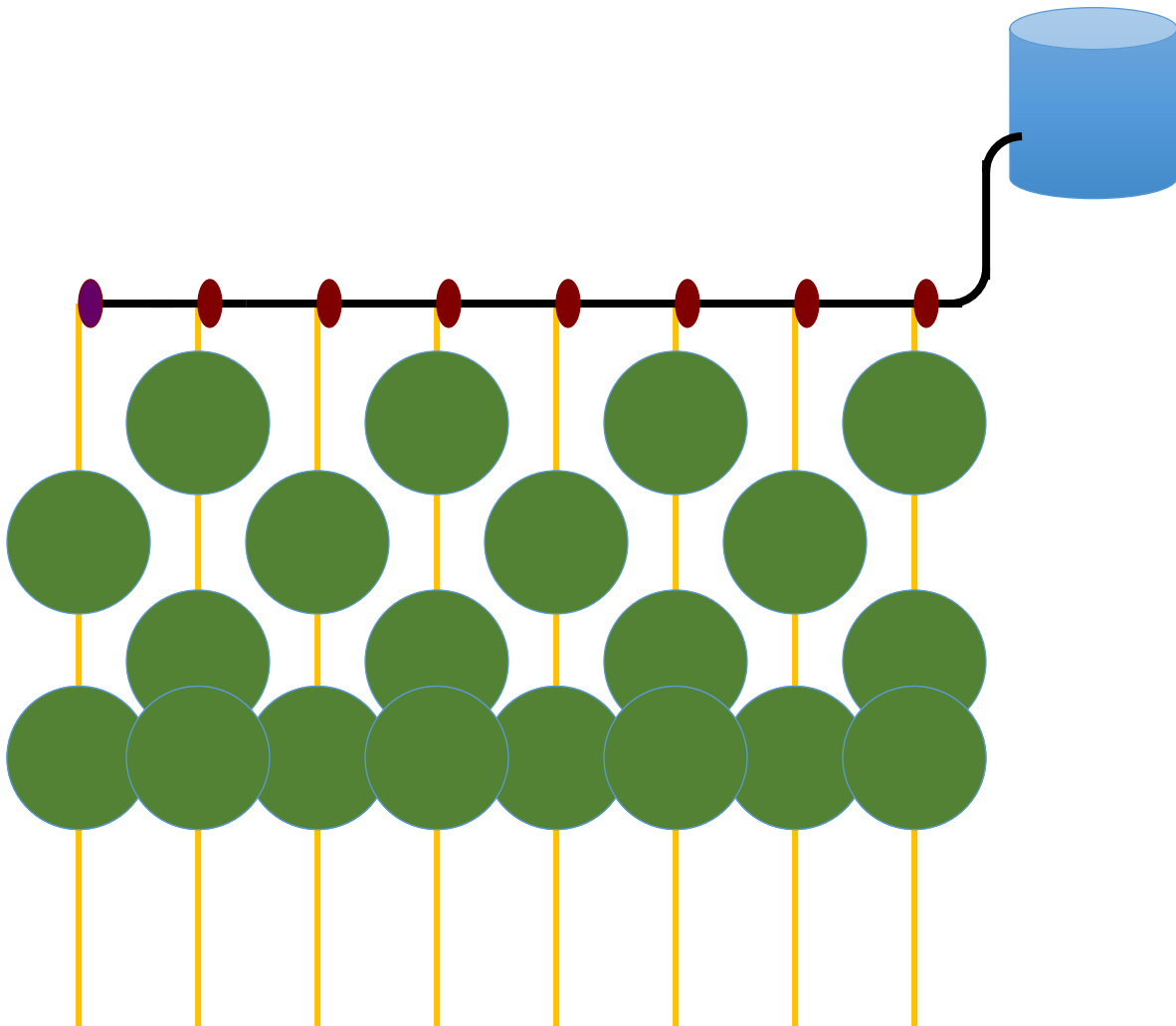
*1/4" Barbed Elbow*



So these are the final calculations per drip  
irrigation system:

1. 3x 100', 1/4" Vinyl Brown Micro Tubing = 23.67\$
2. 7x DIG 1/4" Barbed Tee = 0.84\$
3. 1/4" Barbed Elbow = 0.13\$
- Total: = 24.64\$

Final Sketch:



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