New-Project Analysis

The Campbell Company is considering adding a robotic paint sprayer to its production line. The sprayer's base price is $1,090,000, and it would cost another $23,500 to install it. The machine falls into the MACRS 3-year class (the applicable MACRS depreciation rates are 33.33%, 44.45%, 14.81%, and 7.41%), and it would be sold after 3 years for $519,000. The machine would require an increase in net working capital (inventory) of $19,500. The sprayer would not change revenues, but it is expected to save the firm $377,000 per year in before-tax operating costs, mainly labor. Campbell's marginal tax rate is 30%.

1. What is the Year-0 net cash flow?  
   $  

1. What are the net operating cash flows in Years 1, 2, and 3? Round your answers to the nearest dollar.

|  |  |
| --- | --- |
| Year 1 | $ |
| Year 2 | $ |
| Year 3 | $ |

1. What is the additional Year-3 cash flow (i.e, the after-tax salvage and the return of working capital)? Round your answer to the nearest dollar.  
   $  

1. If the project's cost of capital is 14 %, what is the NPV of the project? Round your answer to the nearest dollar.  
   $     
     
   Should the machine be purchased?  
   